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ABSTRACT

The Instructional Program Planning and Evaluation System (IPPES) Master Objective Bank of the Jackson Public Schools, Michigan, provides a complete listing of the science instructional topics and objectives for kindergarten through the sixth grade. Each item is coded with a ten-digit numeral, which enables the user to categorize a given objective or to locate a given objective according to the following system: (1) the first two digits of the code indicate the subject matter area, classified under the headings of mathematics, reading and grammar, science, social studies, and writing skills and written expressions; (2) the third and fourth digits indicate the grade level; (3) the fifth, sixth, and seventh digits indicate the topic of the instructional unit covered by the objective, and these topics together with their assigned codes are listed on the Topic Summary Sheet; and (4) the eighth, ninth, and tenth digits indicate the objective within the topic, allowing for a maximum of one thousand objectives to be grouped under a single instructional unit topic. In this volume the objectives are primarily grouped according to grade level, with a secondary alphabetical ordering of topics under each grade level. This work was prepared under an ESEA Title III contract. (JR)

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I.P.P.E.S. MASTER OBJECTIVES
SCIENCE (K-6) CATALOG

JACKSON PUBLIC SCHOOLS

INSTRUCTIONAL PROGRAM
PLANNING & EVALUATION SYSTEM

290 WEST MICHIGAN AVENUE
JACKSON, MICHIGAN 49201

Funded under Title III, ESEA of 1965,
Michigan Department of Education Project Number 0621

SE016 294

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MASTER OBJECTIVES BANK

IENCE (K-6) CATALOG

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ESEA TITLE III

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EDUCATION & WELFARE
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ITEM CODE NUMBERS

Each item of the I.P.P.E.S. Master Objectives Bank is coded with a ten digit
user to categorize a given objective or to locate a needed objective according to a n

1. Subject matter major classification. Initially IPPES will provide objecti
   and grammar, (c) science, (d) social studies, and (e) writing skills and w
   left to right) indicate subject matter:

   (a) 00XXXXXXXX = mathematics
   (b) 01XXXXXXXX = reading
   (c) 02XXXXXXXX = science
   (d) 03XXXXXXXX = social studies
   (e) 04XXXXXXXX = writing

2. Grade Level. The grade level at which an objective is normally or traditi
   into the third and fourth digits of the code number. The first issue of th
   through grade six according to the following code:

   (a) XX00XXXXXX = kindergarten
   (b) XX01XXXXXX = first grade
   (c) XX02XXXXXX = second grade
   (d) XX03XXXXXX = third grade
   (e) XX04XXXXXX = fourth grade
   (f) XX05XXXXXX = fifth grade
   (g) XX06XXXXXX - sixth grade

3. Topic of Instructional Unit: The fifth, sixth, and seventh digits indicate
   the objective. Each subject matter major classification may be divided int
   The three digit numerals assigned to topics specific to this catalog are fo
   the body of the catalog all objectives associated with a topic are grouped
   and are associated with a seven digit number.

ITEM CODE NUMBERS

tives Bank is coded with a ten digit numeral. The system chosen makes it easy for any
e a needed objective according to a number of factors:

Initially EPPES will provide objectives in five areas: (a) mathematics, (b) reading
studies, and (e) writing skills and written expression. The first two digits (from
r:

cs

udies

h an objective is normally or traditionally introduced into the curriculum is coded
he code number. The first issue of the catalogs covers the grade span from kindergarten
llowing code:

ten

de

ade

de

ade

de

de

th, sixth, and seventh digits indicate the topic of the instructional unit covered by
ajor classification may be divided into one thousand topics within each grade level.
topics specific to this catalog are found on the following Topic Summary Sheet. Within
s associated with a topic are grouped within grade levels. Topic headings are given
number.

4. Objective Within Topic. A maximum of one thousand objectives mav be grouped under o
eighth, ninth, and tenth digits of the code number indicate the objective within the

SPECIFIC EXAMPLES OF CODING

1. Science

0200060007 KNOW THE PARTS OF A CHICKEN EGG. (Seventh objective within topic)

— Topic: BIRDS
— Kindergarten Level
— Science

2. Reading

0102025001 SELECTS MAIN IDEA OF A PARAGRAPH. (First objective within topic)

— Topic: READING COMPREHENSION
— Second Grade Level
— Reading

3. Social Studies

0305295002 NAME THE MAIN CAUSES OF THE FRENCH AND INDIAN WAR. (Second objective wi

— Topic: U.S. FRENCH AND INDIAN WAR.
— Fifth Grade Level
— Social Studies

sand objectives mav be grouped under one Instructional Unit Topic. The
mber indicate the objective within the topic.

CIFIC EXAMPLES OF CODING

(Seventh objective within topic)

(First objective within topic)

H AND INDIAN WAR. (Second objective within topic)

WAR.

SCIENCE TOPIC SUMMARY SHEET
Grades K-6

CODE	TOPIC	CODE
005	Adaptation (animals)	180
010	Adaptation (behavior)	185
015	Adaptation (defense)	190
020	Adaptation (food)	195
025	Adaptation (habitat)	200
030	Adaptation (man)	205
035	Adaptation (plants)	210
040	Adaptation (plants and animals)	215
045	Air	220
050	Amphibians	225
055	Animals	230
060	Birds	235
065	Cells	240
070	Classification	245
075	Classify (animals)	250
080	Classify by five senses	255
085	Classify by kind, form, and properties	260
090	Classify (matter)	265
095	Classify (plants)	270
100	Classify (plant and animal)	275
105	Classify (plant and animal cells)	280
110	Cloth	285
115	Ecology	290
120	Electricity	295
125	Energy Transformation	300
130	Energy Transformation (air)	305
135	Energy Transformation (atoms)	310
140	Energy Transformation (burning candle)	315
145	Energy Transformation (carbon dioxide)	320
150	Energy Transformation (chemical)	325
155	Energy Transformation (combustion)	330
160	Energy Transformation (compounds)	335
165	Energy Transformation (compounds & mixtures)	340
170	Energy Transformation (condensation)	345
175	Energy Transformation (copper oxide)	350

SCIENCE TOPIC SUMMARY SHEET
Grades K-6

CODE	TOPIC
180	Energy Transformation (decomposition)
185	Energy Transformation (electric)
190	Energy Transformation (elements)
195	Energy Transformation (evaporation)
200	Energy Transformation (food)
205	Energy Transformation (forms)
210	Energy Transformation (heat)
215	Energy Transformation (internal combustion)
220	Energy Transformation (kinetic)
225	Energy Transformation (light & sound)
230	Energy Transformation (liquid)
235	Energy Transformation (mass)
240	Energy Transformation (mixture)
245	Energy Transformation (molecular)
250	Energy Transformation (nuclear)
255	Energy Transformation (oxidation)
260	Energy Transformation (oxygen)
265	Energy Transformation (pressure)
270	Energy Transformation (solar)
275	Energy Transformation (substance)
280	Energy Transformation (volume)
285	Energy Transformation (water)
290	Erosion
295	Fish
300	Force and Motion
305	Fuels
310	Genetics
315	Geology
320	Human Body (behavior)
325	Human Body (circulatory)
330	Human Body (defense)
335	Human Body (diet)
340	Human Body (digestive)
345	Human Body (disease)
350	Human Body (ear)

SCIENCE TOPIC SUMMARY SHEET (continued)

CODE	TOPIC
355	Human Body (exercise)
360	Human Body (eye)
365	Human Body (growth)
370	Human Body (health conditions)
375	Human Body (health & safety)
380	Human Body (life activities)
385	Human Body (muscular)
390	Human Body (nervous)
395	Human Body (nose)
400	Human Body (posture)
405	Human Body (reflex)
410	Human Body (respiratory)
415	Human Body (skeletal)
420	Human Body (skin, hair, teeth, nails)
425	Human Body (systems)
430	Human Body (temperature)
435	Human Body (tongue)
440	Human Body (water)
445	Insects
450	Interdependence
455	Light
460	Machines
465	Machines (complex)
470	Machines (simple)
475	Mammals
480	Magnets
485	Mealworms
490	Metals
495	Microorganisms
500	Microscope technique
505	Mollusks
510	Plants (adaptation)
515	Plants (bacteria)
520	Plants (bacteria & mold)
525	Plants (capillary action)

CODE	
530	Pla
535	Pla
540	Pla
545	Pla
550	Pla
555	Pla
560	Pla
565	Pla
570	Pla
575	Pla
580	Pla
585	Pla
590	Pla
595	Pol
600	Pol
605	Rel
610	Rep
615	Rep
620	Sci
625	Soi
630	Sol
635	Sol
640	Sou
645	Sys
650	Sys
655	Uni
660	Wate
665	Weat
670	Weat
675	Weat
680	Weat
685	Weat
690	Weat
695	Weat
700	Weat

CODE	TOPIC
530	Plants (fertilization)
535	Plants (food chains)
540	Plants (gases)
545	Plants (growth)
550	Plants (hybrids)
555	Plants (molds)
560	Plants (needs)
565	Plants (nongreen)
570	Plants (parts)
575	Plants (roots)
580	Plants (seeds)
585	Plants (trees)
590	Plants (water)
595	Pollution (water)
600	Pollution (water & air)
605	Relative positions of stationary & moving objects)
610	Reproduction
615	Reptiles (extinct)
620	Scientific Method
625	Soil
630	Solar system
635	Solar System (stars)
640	Sound
645	Systems (Interactions)
650	Systems & subsystems
655	Universe
660	Water
665	Weather
670	Weather (clouds)
675	Weather (fronts)
680	Weather (precipitation)
685	Weather (prediction)
690	Weather (recording)
695	Weather (storms)
700	Weather (temperature)

0200050	AMPHIBIANS	
0200050001	KNOW THAT A TURTLE BEGAN ITS LIFE AS AN EGG, WHICH	HATC
0200050002	DESCRIBE HOW A TURTLE BEGAN ITS LIFE AS AN EGG, WHICH	HATC
0200050003	KNOW THE CHARACTERISTICS AND LIFE ACTIVITIES OF AQUATIC	AND L
0200050004	DESCRIBE THE CHARACTERISTICS AND LIFE ACTIVITIES OF EAT.	AQUA
0200060	BIRDS	
0200060001	KNOW THAT A CHICKEN IS ONE KIND OF BIRD AND THAT ALL AND ARE COVERED WITH FEATHERS.	BIRDS
0200060002	DESCRIBE THAT A CHICKEN IS ONE KIND OF BIRD AND THAT ALL EGGS AND THEY ARE COVERED WITH FEATHERS.	BIRDS
0200060003	KNOW THAT CHICKEN EGGS COME FROM THE HEN OR MOTHER INTO ADULTS.	CHICK
0200060004	DESCRIBE THAT CHICKEN EGGS COME FROM THE HEN OR MOTHER INTO ADULTS.	CHICK
0200060005	IDENTIFY PARTS OF THE EGG AS SHELL, MEMBRANE, WHITE AND	YOLK.
0200060006	DESCRIBE A CHICKEN EGG, BY BREAKING ONE OPEN AND	OBSER
0200060007	KNOW THE PARTS OF A CHICKEN EGG.	
0200075	CLASSIFY (ANIMALS)	
0200075001	KNOW THAT DIFFERENT ANIMALS CAN BE ORDERED BY AND AIR, MOVE, GROW, AND PRODUCE EGGS OR YOUNG.	CHARA

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IFE AS AN EGG, WHICH        HATCHED INTO A SMALL TURTLE AND THEN GREW INTO AN ADULT.

TS LIFE AS AN EGG, WHICH    HATCHED INTO A SMALL TURTLE AND THEN GREW INTO AN ADULT.

IFE ACTIVITIES OF AQUATIC   AND LAND TURTLES.

AND LIFE ACTIVITIES OF      AQUATIC AND LAND TURTLES, BY OBSERVING THEM MOVE AND



ND OF BIRD AND THAT ALL     BIRDS ARE ALIKE IN TWO WAYS, ALL LAY HARD-SHELLED EGGS

KIND OF BIRD AND THAT ALL   BIRDS ARE ALIKE IN TWO WAYS. THEY ALL LAY HARD-SHELLED
FEATHERS.

ROM THE HEN OR MOTHER       CHICKEN, AND THAT EGGS HATCH INTO BABY CHICKS WHICH GROW

ME FROM THE HEN OR MOTHER   CHICKEN, AND THAT EGGS HATCH INTO BABY CHICKS WHICH GROW

SHELL, MEMBRANE, WHITE AND  YOLK.

AKING ONE OPEN AND          OBSERVING IT.

GG.



N BE ORDERED BY             CHARACTERISTICS AND LIFE ACTIVITIES OF HOW THEY GET FOOD
CE EGGS OR YOUNG.
```

0200075002	ORDER VARIETY OF DIFFERENT ANIMALS INTO SETS AND SUBSETS ACCORDING HOW THEY GET FOOD AND AIR, MOVE, GROW, AND PRODUCE EGGS OR YOUNG.
0200080	CLASSIFY BY FIVE SENSES
0200080001	IDENTIFY THE SENSE OR SENSES USED IN EXAMINING A GIVEN OBJECT.
0200080002	KNOW THAT OBJECTS CAN BE IDENTIFIED BY SIZE, SHAPE, COLOR, TEX
0200080003	NAME A VARIETY OF OBJECTS, BY SIZE, SHAPE, COLOR, TEXTURE, A
0200080004	IDENTIFY A VARIETY OF OBJECTS BY SIZE, SHAPE, COLOR, TEXTURE, A
0200080005	KNOW THAT OBJECTS CAN BE ORDERED ACCORDING TO THEIR LIKENESSES
0200080006	ORDER A VARIETY OF OBJECTS ACCORDING TO THEIR LIKENESSES AND DIFFER
0200080007	KNOW THAT OBJECTS CAN BE DISTINGUISHED ACCORDING TO COLORS.
0200080008	DISTINGUISH BETWEEN OBJECTS, ACCORDING TO THEIR COLORS.
0200080009	KNOW THAT OBJECTS CAN BE NAMED BY COLOR.
0200080010	KNOW THAT OBJECTS CAN BE IDENTIFIED BY COLORS.
0200080011	KNOW THAT OBJECTS CAN BE ORDERED BY COLORS.
0200080012	ORDER OBJECTS BY THEIR COLORS.

INTO SETS AND SUBSETS ACCORDING TO CHARACTERISTICS AND TO LIFE ACTIVITIES OF
OW, AND PRODUCE EGGS OR YOUNG.

N EXAMINING A GIVEN OBJECT.

BY SIZE, SHAPE, COLOR, TEXTURE, AND MATERIAL.

SHAPE, COLOR, TEXTURE, AND MATERIAL.

ZE, SHAPE, COLOR, TEXTURE, AND MATERIAL.

CORDING TO THEIR LIKENESSES AND DIFFERENCES.

G TO THEIR LIKENESSES AND DIFFERENCES.

HED ACCORDING TO COLORS.

ING TO THEIR COLORS.

OLOR.

BY COLORS.

COLORS.

0200080013	CLASSIFY OBJECTS BY COLOR.
0200080014	NAME OBJECTS BY COLORS, AS RED, BLUE, YELLOW, AND GREEN.
0200080015	IDENTIFY OBJECTS BY COLORS, AS RED, BLUE, YELLOW, AND GREEN
0200080016	NAME THE PRIMARY COLORS.
0200080017	IDENTIFY THE SECONDARY COLOR RESULTING FROM THE COMBI
0200080018	CLASSIFY CIRCLES, TRIANGLES, SQUARES, AND RECTANGLES BY SHAPE
0200080019	KNOW THAT OBJECTS CAN BE IDENTIFIED BY THE SOUND THEY MAKE.
0200080020	KNOW THAT OBJECTS CAN BE DISTINGUISHED BY SIMILAR SOUND
0200080021	RECOGNIZE OBJECTS THAT MAKE SOUNDS THAT YOU CAN HEAR.
0200080022	IDENTIFY OBJECTS BY THE SOUND THEY MAKE.
0200080023	DESCRIBE OBJECTS BY THE SOUND THEY MAKE.
0200080024	DISTINGUISH BETWEEN OBJECTS THAT GIVE A SIMILAR SOUND.
0200080025	GIVEN ONE SOUND FOLLOWED BY ANOTHER SOUND, RECOGNIZE WHICH
0200080026	GIVEN ONE SOUND FOLLOWED BY ANOTHER SOUND, RECOGNIZE WHICH

BLUE, YELLOW, AND GREEN.

ED, BLUE, YELLOW, AND GREEN.

SULTING FROM THE COMBINATION OF TWO PRIMARY COLORS.

JARES, AND RECTANGLES BY SHAPE.

FIED BY THE SOUND THEY MAKE.

GUISHED BY SIMILAR SOUNDS.

NDS THAT YOU CAN HEAR.

HEY MAKE.

HEY MAKE.

T GIVE A SIMILAR SOUND.

THER SOUND, RECOGNIZE WHICH SOUND IS LOUDER.

THER SOUND, RECOGNIZE WHICH SOUND IS MORE PLEASANT.

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0200080027       CLASSIFY OBJECTS BY THE SOUNDS THEY MAKE.

0200080028       KNOW THAT OBJECTS CAN BE DISTINGUISHED BY TEXTURE,       TOUCH,

0200080029       DISTINGUISH BETWEEN OBJECTS OF SIMILAR TEXTURE, BY       TOUCH A

0200080030       KNOW THAT TEXTURES CAN BE DESCRIBED BY TOUCH.

0200080031       DESCRIBE THE TEXTURES OF A VARIETY OF OBJECTS BY         TOUCHIN

0200080032       AFTER TOUCHING AN OBJECT, DESCRIBE ITS TEXTURE.

0200080033       RECOGNIZE A CIRCLE, A SQUARE, A TRIANGLE, AND A          RECTANG

0200080034       KNOW THAT OBJECTS CAN BE DISTINGUISHED BY THEIR WEIGHT.

0200080035       IDENTIFY HEAVIER OF TWO OBJECTS WHEN THEY ARE PLACED     ONE IN

0200080036       KNOW THAT SUBSTANCES CAN BE IDENTIFIED BY ODOR AND       TASTE.

0200080037       DESCRIBE SUBSTANCES BY ODOR AND TASTE, WHILE             BLINDFO

0200080038       IDENTIFY SUBSTANCES BY ODOR AND TASTE, WHILE             BLINDFO

0200080039       GIVEN OBJECTS THAT LOOK ALIKE BUT SMELL OR TASTE         DIFFERE
                 DIFFERENT.

0200080040       GIVEN VARIOUS FOODS TO TASTE, CLASSIFY THEIR TASTES AS   SALTY,
```

KE.

BY TEXTURE, TOUCH, AND BY TASTE.

TEXTURE, BY TOUCH AND BY TASTE.

TOUCH.

OBJECTS BY TOUCHING THEM, WHILE BLINDFOLDED.

S TEXTURE.

LE, AND A RECTANGLE BY USING THE SENSE OF TOUCH.

BY THEIR WEIGHT.

HEY ARE PLACED ONE IN EACH HAND.

BY ODOR AND TASTE.

WHILE BLINDFOLDED.

WHILE BLINDFOLDED.

L OR TASTE DIFFERENT, RECOGNIZE WHETHER THEY SMELL OR TASTE

THEIR TASTES AS SALTY, SOUR, SWEET, OR BITTER.

0200085	CLASSIFY BY KIND, FORM, AND PROPERTIES
0200085001	KNOW THAT OBJECTS THAT HAVE SIMILAR SIZE, BUT DIFFER IN WEI
0200085002	KNOW THAT OBJECTS CAN BE DESCRIBED ACCORDING TO WEIGHT ON
0200085003	DESCRIBE SOME PROPERITES OF A GIVEN OBJECT. (COLOR, MAGN
0200085004	DISTINGUISH BETWEEN TWO OBJECTS, ACCORDING TO THEIR WEI
0200085005	DESCRIBE OBJECTS ACCORDING TO THEIR WEIGHT ON A SCALE OR SPRI
0200085006	DISTINGUISH BETWEEN OBJECTS THAT HAVE SIMILAR SIZE, BUT DIFF
0200085007	KNOW THAT OBJECTS THAT WILL FLOAT AND NOT FLOAT CAN BE DIST
0200085008	DISTINGUISH BETWEEN OBJECTS THAT WILL FLOAT AND NOT FLOA
0200085009	KNOW THAT A SCALE WORKS BY CAUSING THE INDICATOR TO MOVE
0200085010	RECOGNIZE HEAVIER OF TWO OBJECTS WHEN THEY ARE PLACED ONE
0200085011	DEMONSTRATE HOW A SCALE WORKS, BY WEIGHING OBJECTS, CAUS OBJECTS.
0200085012	GIVEN STANDARD UNIT OF WEIGHT AND A SOLID OBJECT, PRED
0200095	CLASSIFY (PLANTS)
0200095001	KNOW THAT PLANTS ARE DIFFERENT, ALTHOUGH THEY HAVE SIMI

MILAR SIZE, BUT DIFFER IN WEIGHT, CAN BE DISTINGUISHED BY USING A SCALE.

IBED ACCORDING TO WEIGHT ON A SCALE OR SPRING BALANCE.

GIVEN OBJECT. (COLOR, MAGNETISM, WEIGHT, MATERIAL, SHAPE, TEXTURE).

S, ACCORDING TO THEIR WEIGHT.

THEIR WEIGHT ON A SCALE OR SPRING BALANCE.

AT HAVE SIMILAR SIZE, BUT DIFFER IN WEIGHT, BY USING A SCALE.

OAT AND NOT FLOAT CAN BE DISTINGUISHED, BY PLACING THEM IN WATER.

AT WILL FLOAT AND NOT FLOAT, BY PLACING THEM IN WATER.

SING THE INDICATOR TO MOVE FARTHER WITH HEAVIER OBJECTS.

TS WHEN THEY ARE PLACED ONE IN EACH PAN OF EQUAL-ARM BALANCE.

BY WEIGHING OBJECTS, CAUSING THE INDICATOR TO MOVE FARTHER WITH HEAVIER

AND A SOLID OBJECT, PREDICT HOW MUCH OBJECT WOULD WEIGH IN STANDARD UNITS.

T, ALTHOUGH THEY HAVE SIMILAR LIFE ACTIVITIES.

0200095002	DESCRIBE THAT PLANTS DIFFER, BY OBSERVING DIFFERENT PLANTS, AND CHARACTERISTICS, THOUGH SIMILAR LIFE ACTIVITIES.
0200295	FISH
0200295001	KNOW THAT A FISH BEGAN ITS LIFE AS AN EGG, WHICH HATCHED INTO A TINY
0200295002	DESCRIBE HOW A FISH BEGAN ITS LIFE AS AN EGG, WHICH HATCHED INTO ADULT.
0200295003	KNOW HOW A FISH MOVES, GETS AIR, AND EATS.
0200295004	DESCRIBE HOW A FISH MOVES, GETS AIR, AND EATS, BY OBSERVING A
0200295005	IDENTIFY THE PARTS OF THE FISH AS TAIL, FINS, GILLS, AND SCALES.
0200300	FORCE AND MOTION
0200300001	KNOW THAT PUSHES AND/OR PULLS ARE FORCES.
0200300002	DEMONSTRATE THAT A PUSH OR PULL IS NEEDED TO MAKE THINGS MOVE, BY MOV
0200300003	NAME PUSHES AND PULLS AS FORCES.
0200300004	KNOW THAT A FORCE IS NEEDED TO STOP AN OBJECT THAT IS MOVING.
0200300005	KNOW THAT A FORCD IS NEEDED TO CHANGE THE DIRECTION OF A MOTION.
0200300006	DEMONSTRATE THAT A FORCE IS NEEDED TO CHANGE THE DIRECTION OF OBSTACLES, CAUSING THEM TO BE DEFLECTED.

BY OBSERVING DIFFERENT PLANTS, AND BY DISCUSSING THAT THEY HAVE DIFFERENT
ILAR LIFE ACTIVITIES.

LIFE AS AN EGG, WHICH HATCHED INTO A TINY FISH AND THEN GREW TO BECOME AN ADULT.

TS LIFE AS AN EGG, WHICH HATCHED INTO A TINY FISH AND THEN GREW TO BECOME AN

AIR, AND EATS.

GETS AIR, AND EATS, BY OBSERVING A GOLDFISH IN AN AQUARIUM.

ISH AS TAIL, FINS, GILLS, AND SCALES.

LS ARE FORCES.

PULL IS NEEDED TO MAKE THINGS MOVE, BY MOVING VARIOUS OBJECTS.

RCES.

TO STOP AN OBJECT THAT IS MOVING.

TO CHANGE THE DIRECTION OF A MOTION.

NEEDED TO CHANGE THE DIRECTION OF A MOTION, BY ROLLING OBJECTS AGAINST
BE DEFLECTED.

```
0200300007     KNOW THAT A PUSH OR PULL IS NEEDED TO MAKE THINGS MOVE,  BY MO

0200300008     NAME THE FORCE THAT CAUSES FALLING THINGS TO FALL        TOWAR

0200300009     KNOW THAT THE FORCE THAT CAUSES FALLING THINGS TO FALL   TOWAR

0200300010     KNOW THAT AS THINGS ARE DROPPED THEY FALL TOWARD THE     EARTH

0200300011     DEMONSTRATE THAT AS THINGS ARE DROPPED THEY FALL TOWARD  THE E

0200300012     KNOW THAT GRAVITY MAKES THINGS GO FASTER AND FASTER.

0200300013     DEMONSTRATE THAT GRAVITY MAKES THINGS GO FASTER, BY      ROLLI
               POINTS ON BOARD, OR BY RAISING AND LOWERING BOARD        MARKI
0200300014     KNOW THAT THE PULL THAT CAUSES FALLING THINGS TO FALL    TOWAR

0200300015     DESCRIBE THE PULL THAT CAUSES FALLING THINGS TO FALL     TOWAR

0200300016     KNOW THAT IN ORDER TO LIFT AN OBJECT, THE NET FORCE MUST BE GR

0200300017     DESCRIBE THAT A FORCE IS NEEDED TO STOP AN OBJECT THAT   IS MO
               BEEN MOVED WILL COME TO A STOP.
0200300018     KNOW THAT THE FORCE THAT STOPS MOVING OBJECTS IS         FRICT

0200300019     DEMONSTRATE THAT FRICTION STOPS ROLLING AND SLIDING      OBJEC
               BOARD CAUSING SLIDING OBJECTS TO STOP MORE QUICKLY.
0200300020     KNOW THAT FRICTION STOPS ROLLING AND SLIDING OBJECTS.
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EEDED TO MAKF THINGS MOVE, BY MOVING VARIOUS OBJECTS.

LLING THINGS TO FALL       TOWARD THE EARTH AS GRAVITY,

ES FALLING THINGS TO FALL  TOWARD THE EARTH IS GRAVITY,

ED THEY FALL TOWARD THE    EARTH.

E DROPPED THEY FALL TOWARD THE EARTH,

S GO FASTER AND FASTER.

S THINGS GO FASTER, BY     ROLLING OBJECTS DOWN SMOOTH BOARD, STARTING AT DIFFERENT
S AND LOWERING BOARD       MARKING WHERE OBJECTS STOP.

S FALLING THINGS TO FALL   TOWARD THE EARTH IS A FORCE,

 FALLING THINGS TO FALL    TOWARD THE EARTH AS A FORCE,

 OBJECT, THE NET FORCE MUST BE GREATER THAN THE FORCE OF GRAVITY.

D TO STOP AN OBJECT THAT   IS MOVING, BY OBSERVING THAT ROLLING OBJECTS THAT HAVE
.

 MOVING OBJECTS IS         FRICTION.

S ROLLING AND SLIDING      OBJECTS, BY ROLLING AND SLIDING DIFFERENT OBJECTS DOWN A
TO STOP MORF QUICKLY.

NG AND SLIDING OBJECTS.
```

0200300021 NAME THE FORCE THAT STOPS MOVING OBJECTS AS FRICTION.

0200300022 DEMONSTRATE THE FUNCTION OF A LEVER AND FULCRUM, BY USING A SIMPL
DIRECTION OF FORCE BEING USED BY HIM.

0200300023 KNOW THAT IT IS EASIER TO LIFT SOMETHING WITH A LEVER OR SEESAW WHEN T

0200300024 DEMONSTRATE THAT IT IS EASIER TO LIFT SOMETHING WITH A LEVER OR SEES

0200300025 DEMONSTRATE THAT LIFTING OBJECTS IS THE USING OF A FORCE IN THE DIRECT
OBJECTS REQUIRE MORE FORCE TO LIFT THEM.

0200300026 KNOW THE FUNCTION OF A LEVER AND FULCRUM.

0200300027 KNOW THAT HEAVIER OBJECTS ARE THOSE THAT NEED MORE FORCE TO MOVE

0200300028 DESCRIBE HEAVIER OBJECTS AS THOSE THAT NEED MORE FORCE TO MOVE THEM.

0200300029 DESCRIBE THAT, IN ORDER TO LIFT AN OBJECT, THE NET FORCE MUST BE GREAT

0200380 HUMAN BODY (LIFE ACTIVITIES)

0200380001 KNOW THAT HUMAN LIFE ACTIVITIES ARE COMMON WITH ALL LIVING THINGS

0200380002 DESCRIBE HIS OWN LIFE ACTIVITIES, IN COMMON WITH ALL LIVING THINGS
HIS OWN ACTIVITIES WITH OTHER LIVING THINGS STUDIED.

0200445 INSECTS

0200445001 KNOW THAT A MOTH IS ONE KIND OF INSECT, AND THAT ALL INSECTS HAVE
SKELETON.

MOVING OBJECTS AS FRICTION.

F A LEVER AND FULCRUM, BY USING A SIMPLE LEVER TO LIFT OBJECTS AND CHANGE THE
SED BY HIM.

LIFT SOMETHING WITH A LEVER OR SEESAW WHEN THE LOAD IS ON THE SHORT END.

IER TO LIFT SOMETHING WITH A LEVER OR SEESAW WHEN THE LOAD IS ON THE SHORT END.

BJECTS IS THE USING OF A FORCE IN THE DIRECTION OPPOSITE TO GRAVITY, AND THAT HEAVIER
TO LIFT THEM.

ER AND FULCRUM.

ARE THOSE THAT NEED MORE FORCE TO MOVE THEM.

S THOSE THAT NEED MORE FORCE TO MOVE THEM.

LIFT AN OBJECT, THE NET FORCE MUST BE GREATER THAN THE FORCE OF GRAVITY.

S)

ITIES ARE COMMON WITH ALL LIVING THINGS.

VITIES, IN COMMON WITH ALL LIVING THINGS, BY OBSERVING BABY PICTURES AND COMPARING
HER LIVING THINGS STUDIED.

ND OF INSECT, AND THAT ALL INSECTS HAVE SIX LEGS, USUALLY WINGS, AND AN OUTSIDE

0200445002	DESCRIBE THAT A MOTH IS ONE KIND OF INSECT, AND THAT ALL INSECTS H SKELETON.
0200445003	KNOW THAT THE CATERPILLAR HATCHED FROM TINY EGGS PRODUCED
0200445004	DESCRIBE HOW THE CATERPILLAR HATCHED FROM TINY EGGS PRODUCED
0200445005	DESCRIBE THE LIFE CYCLE OF A MOTH, BY OBSERVING LIVE CATERPILL CHANGE INTO ADULTS.
0200445006	KNOW THE LIFE CYCLE OF A MOTH.
0200450	INTERDEPENDENCE
0200450001	KNOW THE VARIETY OF PLANT AND ANIMAL MATERIALS IN THE SAME ENVI
0200450002	KNOW THAT PLANTS AND ANIMALS SHARE A COMMON ENVIRONMENT FROM WHIC GROW.
0200450003	KNOW PLANT-ANIMAL RELATIONSHIPS AND THEIR DEPENDENC
0200450004	DESCRIBE HOW PLANTS AND ANIMALS SHARE A COMMON ENVIRONME LIVE AND GROW.
0200450005	DEMONSTRATE THE VARIETY OF PLANT AND ANIMAL MATERIALS IN THE SAME NEIGHBORHOOD AREA.
0200450006	DESCRIBE PLANT-ANIMAL RELATIONSHIPS AND THEIR DEPENDENCE ON MAN, B
0200475	MAMMALS
0200475001	KNOW THE CHARACTERISTICS AND LIFE ACTIVITIES OF MAMMALS.

D OF INSECT, AND THAT ALL INSECTS HAVE SIX LEGS, USUALLY WINGS, AND AN OUTSIDE

ED FROM TINY EGGS PRODUCED BY THE ADULT MOTH.

TCHED FROM TINY EGGS PRODUCED BY THE ADULT MOTH.

TH, BY OBSERVING LIVE CATERPILLARS AS THEY MOVE, FEED, SPIN COCOONS, AND

NIMAL MATERIALS IN THE SAME ENVIRONMENT.

ARE A COMMON ENVIRONMENT FROM WHICH THEY GET THE THINGS THEY NEED TO LIVE AND

AND THEIR DEPENDENCE ON MAN.

SHARE A COMMON ENVIRONMENT FROM WHICH THEY GET THE THINGS THEY NEED TO

T AND ANIMAL MATERIALS IN THE SAME ENVIRONMENT, BY COLLECTING MATERIALS FROM THE

HIPS AND THEIR DEPENDENCE ON MAN, BY VISITING AND OBSERVING LIFE ON A FARM.

FE ACTIVITIES OF MAMMALS.

0200475002	KNOW THAT THE MOTHER MAMMAL HAS BABIES, WHICH SHE WILL TAKE CARE OF THEIR OWN TO BECOME ADULTS.
0200475003	DESCRIBE HOW THE MOTHER MAMMAL HAS BABIES, WHICH SHE WILL TAKE CA ON THEIR OWN TO BECOME ADULTS.
0200475004	DESCRIBE THE CHARACTERISTICS AND LIFE ACTIVITIES OF MAMMALS, SUC THEM MOVE, EAT, CONSTRUCT NESTS, AND RAISE YOUNG.
0200480	MAGNETS
0200480001	DEMONSTRATE THE PUSHING AND PULLING FORCE OF A MAGNET, BY USING A MA OBJECTS.
0200480002	KNOW THE PUSHING AND PULLING FORCE OF A MAGNET, BY USING A MAGNE
0200480003	KNOW THAT ONE BAR MAGNET EFFECTS ANOTHER BY CAUSING LIKE ENDS TO REPE
0200480004	DEMONSTRATE THE EFFECT OF ONE BAR MAGNET UPON ANOTHER, BY CAUSING L ATTRACT.
0200480005	KNOW THAT BAR MAGNETS ARE STRONGER ON THE ENDS THAN IN THE MIDDLE.
0200480006	DEMONSTRATE THAT BAR MAGNETS ARE STRONGER ON THE ENDS THAN IN THE M PLACES ON THE MAGNET.
0200480007	KNOW THAT SOME OBJECTS ARE AFFECTED BY THE MAGNET AND OTHERS ARE NO
0200480008	DISTINGUISH BETWEEN OBJECTS THAT CAN AND CANNOT BE MOVED BY THE MAGNET NOT AFFECTED BY THE MAGNET.
0200505	MOLLUSKS
0200505001	KNOW THAT A SNAIL BEGAN ITS LIFE AS AN EGG, WHICH HATCHED INTO

ABIES, WHICH SHE WILL TAKE CARE OF FOR A WHILE UNTIL THE BABIES CAN GROW ON

S BABIES, WHICH SHE WILL TAKE CARE OF FOR A WHILE UNTIL THE BABIES CAN GROW

LIFE ACTIVITIES OF MAMMALS, SUCH AS WHITE RATS OR GUINEA PIGS, BY OBSERVING
AND RAISE YOUNG.

NG FORCE OF A MAGNET, BY USING A MAGNET TO LIFT AND MOVE VARIOUS METAL

E OF A MAGNET, BY USING A MAGNET TO LIFT AND MOVE VARIOUS METAL OBJECTS.

ANOTHER BY CAUSING LIKE ENDS TO REPEL AND UNLIKE ENDS TO ATTRACT.

MAGNET UPON ANOTHER, BY CAUSING LIKE ENDS TO REPEL AND UNLIKE ENDS TO

R ON THE ENDS THAN IN THE MIDDLE.

STRONGER ON THE ENDS THAN IN THE MIDDLE, BY LIFTING PAPER CLIPS AT DIFFERENT

ED BY THE MAGNET AND OTHERS ARE NOT.

CAN AND CANNOT BE MOVED BY THE MAGNET, BY USING VARIOUS KINDS OF OBJECTS, SOME

AS AN EGG, WHICH HATCHED INTO A TINY SNAIL AND THEN GREW INTO AN ADULT.

0200505002	DESCRIBE THAT A SNAIL BEGAN ITS LIFE AS AN EGG, WHICH HATC
0200505003	KNOW THE CHARACTERISTICS AND LIFE ACTIVITIES OF AQUATIC AND
0200505004	DESCRIBE THE CHARACTERISTICS AND LIFE ACTIVITIES OF AQUA EAT.
0200570	PLANTS (PARTS)
0200570001	KNOW THE PARTS OF A PLANT AS ROOT, STEM, LEAF, FLOWER, AND S
0200570002	IDENTIFY PARTS OF THE PLANT AS ROOT, STEM LEAF, FLOWER, AND S
0200580	PLANTS (SEEDS)
0200580001	KNOW THAT AN ASSORTMENT OF BEAN SEEDS CAN BE ORDERED ACCOR
0200580002	ORDER AN ASSORTMENT OF BEAN SEEDS ACCORDING TO THEIR LIKEN
0200580003	KNOW THAT BEAN SEEDS WILL SPROUT AND EXHIBIT DIFFERENCES IN TH
0200580004	KNOW DIFFERENT WAYS TO SPROUT SEEDS, BY PLACING SOME ON A MOI SOME IN SOIL, AND SOME IN WATER.
0200580005	DEMONSTRATE DIFFERENT WAYS TO SPROUT SEEDS, BY PLACING SOME GLASS, SOME IN SOIL, AND SOME IN WATER.
0200580006	DEMONSTRATE THAT BEAN SPEEDS WILL SPROUT AND EXHIBIT DIFFE OF SEEDS AND OBSERVING THEIR GROWTH.
0200580007	KNOW THAT WHEN SEEDS ARE PLANTED, THEY WILL SPROUT AND GROW

GAN ITS LIFE AS AN EGG, WHICH HATCHED INTO A TINY SNAIL AND THEN GREW INTO AN ADULT.

AND LIFE ACTIVITIES OF AQUATIC AND GARDEN SNAILS.

TICS AND LIFE ACTIVITIES OF AQUATIC AND GARDEN SNAILS, BY OBSERVING THEM MOVE AND

T AS ROOT, STEM, LEAF, FLOWER, AND SEED.

ANT AS ROOT, STEM LEAF, FLOWER, AND SEED.

OF BEAN SEEDS CAN BE ORDERED ACCORDING BY LIKENESSES OR DIFFERENCES.

EAN SEEDS ACCORDING TO THEIR LIKENESSES OR DIFFERENCES.

L SPROUT AND EXHIBIT DIFFERENCES IN THEIR SPROUTS.

PROUT SEEDS, BY PLACING SOME ON A MOIST SPONGE, SOME BETWEEN BLOTTING PAPER AND GLASS,
N WATER.

YS TO SPROUT SEEDS, BY PLACING SOME ON A MOIST SPONGE, SOME BETWEEN BLOTTING PAPER AND
SOME IN WATER.

EEDS WILL SPROUT AND EXHIBIT DIFFERENCES IN THEIR SPROUTS, BY PLANTING VARIOUS KINDS
HEIR GROWTH.

PLANTED, THEY WILL SPROUT AND GROW INTO THE SAME KIND OF PLANT FROM WHICH THEY CAME.

0200580008	DESCRIBE THAT WHEN SEEDS ARE PLANTED THEY WILL SPROUT AND GROW IN CAME.
0200580009	DESCRIBE A GROWING SEED PLANT BY OBSERVING A COMPLETE DANDELION P
0200585	PLANTS (TREES)
0200585001	KNOW THAT TREES HAVE SIMILARITIES WITH, AND DIFFERENCES FROM OTHER
0200585002	DESCRIBE THAT TREES HAVE SIMILARITIES WITH, AND DIFFERENCES OF SEEDS, FRUITS, AND OTHER TREE PARTS.
0200590	PLANTS (WATER)
0200590001	KNOW THAT SOME PLANTS GROW IN WATER.
0200590002	DESCRIBE THAT SOME PLANTS GROW IN WATER, BY OBSERVING AQUARIUM PL AND SIMILARITIES WITH, AND DIFFERENCES FROM, OTHER PLANTS.
0200590003	KNOW THAT SEAWEEDS DIFFER FROM OTHER PLANTS IN THAT THEY LACK ROOTS, SPECIAL PLANT CLASS (ALGAE).
0200590004	DESCRIBE THAT SEAWEEDS DIFFER FROM OTHER PLANTS IN THAT THAT THEY L BELONG TO A SPEICAL PLANT CLASS (ALGAE).
0200615	REPTILES (EXTINCT)
0200615001	KNOW THAT DINOSAURS ARE NO LONGER IN EXISTENCE, BUT ARE SIMILAR TO
0200615002	DESCRIBE DINOSAURS BY OBSERVING PICTURES OR MODELS AND DISCUSSING PRESENT DAY REPTILES.

NTED THEY WILL SPROUT AND GROW INTO THE SAME KIND OF PLANT FROM WHICH THEY

OBSERVING A COMPLETE DANDELION PLANT, AND DISCUSSING PARTS OF THE PLANT.

S WITH, AND DIFFERENCES FROM OTHER PLANTS.

ITIES WITH, AND DIFFERENCES FROM OTHER PLANTS, BY OBSERVING A COLLECTION
PARTS.

TER.

N WATER, BY OBSERVING AQUARIUM PLANTS AND BY DISCUSSING THE PARTS OF PLANTS
RENCES FROM, OTHER PLANTS.

THER PLANTS IN THAT THEY LACK ROOTS, STEMS, LEAVES, AND FLOWERS, AND BELONG TO A

OM OTHER PLANTS IN THAT THAT THEY LACK ROOTS, STEMS, LEAVES AND FLOWERS, AND
(ALGAE).

R IN EXISTENCE, BUT ARE SIMILAR TO PRESENT DAY REPTILES.

PICTURES OR MODELS AND DISCUSSING THAT THEY NO LONGER EXIST, BUT ARE SIMILAR TO

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0201055       ANIMALS

0201055001    IDENTIFY THE FOLLOWING PROPERTIES OF ANIMALS:  HOW THEY  EAT.

0201055002    IDENTIFY THE FOLLOWING PROPERTIES OF ANIMALS:  HOW THEY  GROW.

0201055003    IDENTIFY THE FOLLOWING PROPERTIES OF ANIMALS:  HOW THEY  CHANGE

0201055004    IDENTIFY THE FOLLOWING PROPERTIES OF ANIMALS:  HOW THEY  MOVE B

0201055005    IDENTIFY THE FOLLOWING PROPERTIES OF ANIMALS:  HOW THEY  REPRODU

0201055006    KEEP AN ACCURATE RECORD OF GROWTH CHANGES OF AN ANIMAL   YOU HA

0201055007    KNOW THAT ANIMALS MAY BE PRESERVED IN ICE FOR LONG       PERIODS

0201055008    DEMONSTRATE THAT ANIMALS MAY BE PRESERVED IN ICE, BY     PLACING
              THEN ADDING WATER TO ENCLOSE THE DEAD INSECT WITHIN ICE.

0201055009    DESCRIBE THAT ANIMALS MAY BE PRESERVED IN ICE FOR LONG   PERIODS
              REMAIN OVER A LONG PERIOD OF TIME.


0201075       CLASSIFY (ANIMALS)

0201075001    LIST BASIC CHARACTERISTIC OF EACH ANIMAL GROUP.

0201075002    CLASSIFY ANIMALS ACCORDING TO HABITATS, SKIN COVERING,   THE WAY

0201075003    GIVEN A LIST OF PICTURES OF 30 DIFFERENT ANIMALS         CLASSIF
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ERTIES OF ANIMALS: HOW THEY EAT.

ERTIES OF ANIMALS: HOW THEY GROW.

ERTIES OF ANIMALS: HOW THEY CHANGE.

ERTIES OF ANIMALS: HOW THEY MOVE BY THEMSELVES.

ERTIES OF ANIMALS: HOW THEY REPRODUCE.

GROWTH CHANGES OF AN ANIMAL YOU HAVE OBSERVED.

ESERVED IN ICE FOR LONG PERIODS.

Y BE PRESERVED IN ICE, BY PLACING A DEAD INSECT IN WATER, LETTING IT FREEZE,
E THE DEAD INSECT WITHIN ICE.

E PRESERVED IN ICE FOR LONG PERIODS, BY OBSERVING THAT THE INSECT FROZEN IN ICE WILL
F TIME.

F EACH ANIMAL GROUP.

TO HABITATS, SKIN COVERING, THE WAY THE ANIMAL MOVES, AND/OR THE NUMBER OF LEGS.

30 DIFFERENT ANIMALS CLASSIFY THEM IN CORRECT ANIMAL GROUP.

0201080	CLASSIFY BY FIVE SENSES
0201080001	NAME THE PRIMARY COLORS.
0201080002	RECOGNIZE OBJECTS THAT ARE THE PRIMARY COLORS.
0201080003	IDENTIFY THE SECONDARY COLOR RESULTING FROM THE COMBINATION
0201080004	CLASSIFY OBJECT BY COLOR.
0201080005	CLASSIFY BIRCH, WALNUT, AND OAK WOODS BY KIND.
0201080006	IDENTIFY OBJECTS MADE OF MORE THAN ONE MATERIAL.
0201080007	DESCRIBE SOME PROPERTIES OF A GIVEN METAL.
0201080008	CLASSIFY OBJECTS BY TEXTURE.
0201080009	RECOGNIZE THE ROCK AND POWDER FORMS OF A GIVEN KIND OF ROCK.
0201080010	CLASSIFY ROCKS BY SIZE, COLOR, KIND, HARDNESS, AND WEIGHT.
0201080011	RECOGNIZE A CIRCLE, A SQUARE, A TRIANGLE, AND A RECTANGLE BY
0201080012	CLASSIFY CIRCLES, TRIANGLES, SQUARES, AND RECTANGLES BY SHAPE.
0201080013	DESCRIBE THE SHAPE AND TEXTURE OF UNSEEN OBJECTS BY USING THE SE
0201080014	AFTER TOUCHING AN OBJECT, DESCRIBE ITS TEXTURE.

COLORS.

FROM THE COMBINATION OF TWO PRIMARY COLORS.

BY KIND.

MATERIAL.

TAL.

A GIVEN KIND OF ROCK.

HARDNESS, AND WEIGHT.

GLE, AND A RECTANGLE BY USING THE SENSE OF TOUCH.

AND RECTANGLES BY SHAPE.

EEN OBJECTS BY USING THE SENSE OF TOUCH.

S TEXTURE.

0201080015	GIVEN VARIOUS FOODS TO TASTE, CLASSIFY THEIR TASTES AS	SAL
0201080016	GIVEN OBJECTS THAT LOOK ALIKE BUT SMELL OR TASTE DIFFERENT.	DIF
0201080017	IDENTIFY THE SENSE OR SENSES USED IN EXAMINING A GIVEN	OBJ
0201080018	DESCRIBE THE PROPERTIES OF A GIVEN OBJECT.	
0201080019	DESCRIBE THE TEXTURE, SIZE, COLOR, SHAPE, AND	REF
0201080020	CLASSIFY WOOD, METAL, AND PLASTIC OBJECTS BY MATERIAL.	
0201080021	CLASSIFY OBJECTS BY SIZE. (USE ONLY THE SENSE OF	TOU
0201080022	CLASSIFY OBJECTS BY TEMPERATURE USING THE SENSE OF	TOU
0201080023	CLASSIFY GIVEN OBJECTS BY SMELL.	
0201080024	CLASSIFY GIVEN OBJECTS BY TASTE.	
0201080025	RECOGNIZE THE CHIPS, SAWDUST, AND SHAVINGS OF A GIVEN	KIN
0201080026	CLASSIFY STEEL, LEAD, BRASE, AND ALUMINUM OBJECTS BY	KIN
0201080027	CLASSIFY LIQUIDS BY DENSITY AND OPAQUENESS.	
0201080028	IDENTIFY THE LIQUID AND ICE FORMS OF WATER.	

SIFY THEIR TASTES AS SALTY, SOUR, SWEET, OR BITTER.

SMELL OR TASTE DIFFERENT, RECOGNIZE WHETHER THEY SMELL OR TASTE

IN EXAMINING A GIVEN OBJECT.

OBJECT.

SHAPE, AND REFLECTANCE OF A GIVEN OBJECT.

OBJECTS BY MATERIAL.

LY THE SENSE OF TOUCH).

ING THE SENSE OF TOUCH. (WARM, HOT, COLD).

SHAVINGS OF A GIVEN KIND OF WOOD.

LUMINUM OBJECTS BY KIND.

PAQUENESS.

OF WATER.

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0201080029      WHEN GIVEN AN OBJECT, EXAMINE AND DESCRIBE ORALLY THE    OBJ
                CRITERIA:  SHAPE, COLOR, TEXTURE.

0201080030      GIVEN A LIST OF TWENTY-FIVE DESCRIPTIVE ADJECTIVES AND A LIS
                TEXTURE), MATCH AT LEAST FIVE OF THE ADJECTIVES WITH     EAC

0201080031      CLASSIFY A GROUP OF OBJECTS IN MORE THAN ONE WAY.        (TE



0201085         CLASSIFY BY KIND, FORM, AND PROPERTIES

0201085001      IDENTIFY THE EVIDENCE OF AIR AS AN OBJECT.

0201085002      TELL AFTER OBSERVATION WHETHER A GIVEN OBJECT FLOATS OR  SIN

0201085003      CLASSIFY OBJECTS BY TEMPERATURE USING A THERMOMETER.

0201085004      CLASSIFY OBJECTS BY WEIGHT.


0201115         ECOLOGY

0201115001      AFTER VIEWING A PICTURE SHOWING AREA OF NATURAL          RES
                CONSERVATION PRACTICES.


0201195         ENERGY TRANSFORMATION (EVAPORATION)

0201195001      KNOW THAT HEAT FROM THE SUN HELPS TO CHANGE WATER TO     WAT

0201195002      DEMONSTRATE EVAPORATION, BY PLACING DROPS OF WATER INTO  AN
                ONE DAY.
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E AND DESCRIBE ORALLY THE OBJECT IN TERMS OF AT LEAST THREE OF THE FOLLOWING
URE.

ESCRIPTIVE ADJECTIVES AND A LIST OF FOUR SCIENTIFIC PROPERTIES (SHAPE, COLOR, ODOR,
OF THE ADJECTIVES WITH EACH SCIENTIFIC PROPERTY.

N MORE THAN ONE WAY. (TEXTURE, SIZE, COLOR, SHAPE, REFLECTANCE).

ROPERTIES

AS AN OBJECT.

R A GIVEN OBJECT FLOATS OR SINKS IN WATER.

RE USING A THERMOMETER.

NG AREA OF NATURAL RESOURCES WASTED OR DESTROYED, LIST FOUR POOR

ATION)

ELPS TO CHANGE WATER TO WATER VAPOR WHICH GOES INTO THE AIR.

LACING DROPS OF WATER INTO AN OPEN GLASS AND OBSERVING THE CHANGE IN QUANTITY AFTER

0201195003	DEMONSTRATE THAT HEAT FROM THE SUN HELPS TO CHANGE WATER TO WATER GLASS OF WATER IN SUNLIGHT AND AN EQUAL GLASS OF WATER IN A DARK
0201300	FORCE AND MOTION
0201300001	KNOW THAT THE UPWARD PUSH OF A RELEASED BALLOON IS CAUSED B
0201300002	DEMONSTRATE A MODEL OF A ROCKET BY BLOWING UP A BALLOON AND LETT
0201300003	DESCRIBE THAT THE UPWARD PUSH IS CAUSED BY THE AIR RUSHING
0201300004	DEMONSTRATE FRICTION BY PULLING A ROLLER SKATE WITH A RUBBER BA WHEN THE SKATE IS DRAGGED ON ITS SIDE THAN WHEN IT IS IS PULLED
0201350	HUMAN BODY (EAR)
0201350001	IDENTIFY THE FUNCTION OF THE EAR.
0201360	HUMAN BODY (EYE)
0201360001	IDENTIFY THE FUNCTION OF THE EYE.
0201395	HUMAN BODY (NOSE)
0201395001	IDENTIFY THE FUNCTION OF THE NOSE.

THE SUN HELPS TO CHANGE WATER TO WATER VAPOR WHICH GOES INTO THE AIR, BY PLACING ONE
AND AN EQUAL GLASS OF WATER IN A DARK OR SHADED PLACE.

F A RELEASED BALLOON IS CAUSED BY THE DOWNWARD RUSH OF AIR FROM THE BALLOON.

CKET BY BLOWING UP A BALLOON AND LETTING IT GO, CAUSING THE BALLOON TO MOVE.

SH IS CAUSED BY THE AIR RUSHING DOWN WARD FROM THE BALLOON.

LING A ROLLER SKATE WITH A RUBBER BAND, CAUSING THE RUBBER BAND TO STRETCH MORE
N ITS SIDE THAN WHEN IT IS IS PULLED ON ITS WHEELS.

E EAR.

E EYE.

E NOSE.

0201435	HUMAN BODY (TONGUE)
0201435001	IDENTIFY THE FUNCTIONS OF THE TONGUE.
0201470	MACHINES (SIMPLE)
0201470001	CHOOSE FIVE MACHINES FROM GROUP OF FIFTEEN OBJECTS.
0201470002	WITH SIMPLE MACHINE, GIVE DEMONSTRATION. SHOW HOW TASK CAN BE
0201470003	LEARN SIX SIMPLE MACHINES. IDENTIFY BY LISTING FOUR IN SCHOOL
0201470004	USING SIMPLE MATERIALS (SPOOLS, ROPE), MAKE A PULLEY SYSTEM
0201480	MAGNETS
0201480001	KNOW THAT A MAGNETIC FORCE CAN BE USED TO OVERCOME THE FORCE O
0201480002	DEMONSTRATE THAT A MAGNETIC FORCE CAN BE USED TO OVERCOM SOME OBJECTS.
0201480003	KNOW THAT A MAGNET CAN BE USED TO PICK UP SOME METAL OBJECTS OBJECTS.
0201480004	DEMONSTRATE THAT A MAGNET CAN BE USED TO PICK UP SOME METAL O NON-METAL OBJECTS.
0201480005	KNOW THAT OBJECTS CAN BE ORDERED INTO TWO GROUPS THOSE THAT CA
0201480006	ORDER OBJECTS INTO TWO GROUPS, THOSE THAT CAN BE PICKED UP BY A

TONGUE.

OUP OF FIFTEEN OBJECTS.

MONSTRATION. SHOW HOW TASK CAN BE MADE EASIER WITH MACHINE.

IDENTIFY BY LISTING FOUR IN SCHOOL ENVIRONMENT.

LS, ROPE), MAKE A PULLEY SYSTEM WHICH WORK.

N BE USED TO OVERCOME THE FORCE OF GRAVITY.

FORCE CAN BE USED TO OVERCOME THE FORCE OF GRAVITY, BY USING A MAGNET TO LIFT

ED TO PICK UP SOME METAL OBJECTS FROM AN ARRAY OF DIFFERENT METAL AND NON-METAL

N BE USED TO PICK UP SOME METAL OBJECTS FROM AN ARRAY OF DIFFERENT METAL AND

ERED INTO TWO GROUPS THOSE THAT CAN BE PICKED UP BY A MAGNET AND THOSE THAT CANNOT.

S, THOSE THAT CAN BE PICKED UP BY A MAGNET AND THOSE THAT CANNOT.

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0201545         PLANTS (GROWTH)

0201545001      KEEP AN ACCURATE RECORD OF THE CHANGING PROPERTIES OF A  GROWI

0201545002      DESCRIBE THE CHANGE OF PROPERTIES IN A GROWING PLANT.


0201555         PLANTS (MOLDS)

0201555001      KNOW THAT MOLD PLANTS MAKE MORE MOLD PLANTS.

0201555002      DEMONSTRATE THAT MOLD PLANTS MAKE MORE MOLD PLANTS BY    PLACI
                DARK, WARM PLACE.


0201560         PLANTS (NEEDS)

0201560001      PREPARE AN EXPERIMENT IN WHICH YOU TRY TO GROW SIMILS    SEEDS

0201560002      KNOW THAT WATER IS ESSENTIAL FOR SURVIVAL OF LIVING      PLANTS

0201560003      DEMONSTRATE THAT WATER IS ESSENTIAL FOR SURVIVAL OF      LIVING
                SOME WITH SUFFICIENT WATER, AND SOME WITH INSUFFICIENT   WATER.
0201560004      KNOW THAT GREEN PLANTS NEED SUNLIGHT.

0201560005      DEMONSTRATE THAT GREEN PLANTS NEED SUNLIGHT, BY          SPROUT
                IN THE DARK TO BE PALE AND WEAK.


0201570         PLANTS (PARTS)

0201570001      DESCRIBE THE PROPERTIES OF A PLANT OR PART OF A PLANT.
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CHANGING PROPERTIES OF A GROWING PLANT.

ES IN A GROWING PLANT.

E MOLD PLANTS.

AKE MORE MOLD PLANTS BY PLACING A PIECE OF MOLDY FOOD NEAR NON-MOLDY FOODS IN A

YOU TRY TO GROW SIMILS SEEDS UNDER TWO OR MORE DIFFERENT SOIL CONDITIONS.

OR SURVIVAL OF LIVING PLANTS.

NTIAL FOR SURVIVAL OF LIVING PLANTS, BY PLANTING BEAN SEEDS IN SOIL, WATERING
D SOME WITH INSUFFICIENT WATER.

NLIGHT.

NEED SUNLIGHT, BY SPROUTING POTATO EYES IN LIGHT AND DARK, CAUSING THOSE
K.

LANT OR PART OF A PLANT.

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0201580         PLANTS (SEEDS)

0201580001      GIVEN SOME SEEDS, GROW A PLANT.

0201580002      KNOW THAT A NEW PLANT SPROUTS FROM A DRIED LIMA BEAN,    WHEN IT H
                SEVERAL DAYS.

0201580003      OBSERVE DEVELOPMENT OF SEED.  DRAW DIAGRAMS AND          CONSTRUCT
                DEVELOPMENTAL STAGES OF GROWTH FOR PLANTS.

0201580004      DEMONSTRATE THAT A NEW PLANT SPROUTS FROM A DRIED LIMA   BEAN WHEN
                SEVERAL DAYS.

0201580005      PREPARE EXPERIMENT IN WHICH YOU TRY TO GROW SIMILIAR     SEEDS UND


0201620         SCIENTIFIC METHOD

0201620001      WITH SERIES OF EXPERIENCES RELATING TO OBSERVATION AND   INFERENCES
                SITUATION.


0201630         SOLAR SYSTEM

0201630001      DEMONSTRATE THE SUN-MOON-EARTH LIGHT RELATIONSHIP, BY    SHINING A
                CAUSING IT TO REFLECT ONTO AN EARTH GLOBE.


0201640         SOUND

0201640001      RECOGNIZE OBJECTS THAT MAKE SOUNDS THAT YOU CAN HEAR.

0201640002      GIVEN ONE SOUND FOLLOWED BY ANOTHER SOUND, RECOGNIZE     WHICH SOU

0201640003      GIVEN ONE SOUND FOLLOWED BY ANOTHER SOUND, RECOGNIZE     WHICH SOU
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ROM A DRIED LIMA BEAN, WHEN IT HAS BEEN SOAKED IN WATER AND KEPT MOIST FOR

RAW DIAGRAMS AND CONSTRUCT VIEWER TO OBSERVE GERMINATION AND
FOR PLANTS.

ROUTS FROM A DRIED LIMA BEAN WHEN IT HAS BEEN SOAKED IN WATER AND KEPT MOIST FOR

TRY TO GROW SIMILIAR SEEDS UNDER TWO OR MORE DIFFERENT SOIL CONDITIONS.

TING TO OBSERVATION AND INFERENCES MAKE OBSERVATION AND INFERENCE ABOUT A

LIGHT RELATIONSHIP, BY SHINING A FLASHLIGHT BEAM AGAINST WHITE PAPER AND
ARTH GLOBE.

NDS THAT YOU CAN HEAR.

THER SOUND, RECOGNIZE WHICH SOUND IS LOUDER.

THER SOUND, RECOGNIZE WHICH SOUND HAS HIGHER PITCH.

0201640004	GIVEN ONE SOUND FOLLOWED BY ANOTHER SOUND, RECOGNIZE WHICH
0201640005	CLASSIFY OBJECTS BY THE SOUNDS THEY MAKE.
0201650	SYSTEMS AND SUBSYSTEMS
0201650001	KEEP AN ACCURATE RECORD OF OBJECTS BELONGING TO A SYSTEM
0201650002	CLASSIFY OBJECTS AND MATERIALS INTO SYSTEMS AND SUBSYS
0201700	WEATHER (TEMPERATURE)
0201700001	KNOW THAT CHANGES IN TEMPERATURE CAN BE DISTINGUISHED BY USING
0201700002	DISTINGUISH BETWEEN CHANGES IN TEMPERATURE, AS INDICATED ON A T UPWARD IN A WARMER ENVIRONMENT AND DOWNWARD IN A COLDER ENVIRO
0201700003	READ THERMOMETER CORRECTLY 10 OUT OF 12 TIMES.

BY ANOTHER SOUND, RECOGNIZE WHICH SOUND IS MORE PLEASANT.

OUNDS THEY MAKE.

F OBJECTS BELONGING TO A SYSTEM.

RIALS INTO SYSTEMS AND SUBSYSTEMS.

ERATURE CAN BE DISTINGUISHED BY USING A THERMOMETER.

ES IN TEMPERATURE, AS INDICATED ON A THERMOMETER, BY OBSERVING THERMOMETER COLUMN MOVE
NMENT AND DOWNWARD IN A COLDER ENVIRONMENT.

Y 10 OUT OF 12 TIMES.

0202070	CLASSIFICATION
0202070001	CLASSIFY GIVEN OBJECTS.
0202070002	DESCRIBE THE PROPERTIES OF A GIVEN OBJECT.
0202075	CLASSIFY (ANIMALS)
0202075001	CLASSIFY FAMILIAR ANIMALS ACCORDING TO WHETHER THEY EAT MEAT, PLA
0202075002	AFTER STUDYING DIFFERENT CLASSIFICATION SCHEMES, WRITE AT LEAST CHARACTERISTICS ARE MOST IMPORTANT IN CLASSIFYING ANIMALS.
0202090	CLASSIFY (MATTER)
0202090001	GIVEN THE NAME OF 20 DIFFERENT MATERIALS USED IN OUR DAILY LIV PHYSICAL PROPERTIES AS LIQUID, GAS, OR SOLID.
0202120	ELECTRICITY
0202120001	KNOW HOW TO CONSTRUCT A CIRCUIT, USING A DRY CELL, WIRES, AN
0202120002	IDENTIFY OPEN AND CLOSED CIRCUITS.
0202120003	PREDICT WHETHER OR NOT AN OBJECT WILL CLOSE AN OPEN CIRCUIT.
0202120004	KNOW HOW A FLASHLIGHT WORKS.
0202120005	DESCRIBE HOW A FLASHLIGHT WORKS BY DISASSEMBLING ONE AND OBSER

OBJECT.

G TO WHETHER THEY EAT MEAT, PLANTS, OR BOTH.

ATION SCHEMES, WRITE AT LEAST ONE PARAGRAPH STATING WHICH ANIMAL
IN CLASSIFYING ANIMALS.

ERIALS USED IN OUR DAILY LIVES, CLASSIFY THE MATERIALS ACCORDING TO THEIR
OR SOLID.

SING A DRY CELL, WIRES, AND A LAMP.

ILL CLOSE AN OPEN CIRCUIT.

DISASSEMBLING ONE AND OBSERVING THE COMPONENTS IN RELATION TO A CIRCUIT.

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0202120006      CONSTRUCT A CIRCUIT, USING A DRY CELL, WIRES, AND A      LAM

0202120007      EXPLAIN WHY AN ELECTRICAL CIRCUIT IS A SYSTEM OF         INT

0202120008      KNOW THAT HUMAN ENERGY CAN BE USED TO GENERATE           ELE

0202120009      DEMONSTRATE THAT HIS OWN ENERGY CAN BE USED TO GENERATE  ELE




0202130         ENERGY TRANSFORMATION (AIR)
0202130001      CONSTRUCT A HYPOTHESIS THAT THIS EXPANSION OF HEATED AIR IN

0202130002      KNOW THAT AIR IN A BOTTLE CAN BE HEATED TO EXPAND A      BAL

0202130003      DESCRIBE THAT AIR IN A BOTTLE CAN BE HEATED TO EXPAND A  BAL


0202195         ENERGY TRANSFORMATION (EVAPORATION)
0202195001      CONSTRUCT A HYPOTHESIS THAT THE MOLECULES MUST HAVE      PAS

0202195002      KNOW THAT WET MATERIALS DRY WHEN WATER EVAPORATES FROM   THE

0202195003      DEMONSTRATE THAT WET MATERIALS DRY WHEN WATER EVAPORATES FRO


0202275         ENERGY TRANSFORMATION (SUBSTANCE)
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 A DRY CELL, WIRES, AND A      LAMP, CAUSING THE LAMP TO LIGHT.

CIRCUIT IS A SYSTEM OF         INTERACTING OBJECTS.

 BE USED TO GENERATE           ELECTRICITY.

NERGY CAN BE USED TO GENERATE  ELECTRICITY, BY USING A HAND GENERATOR TO LIGHT A LAMP.




)
T THIS EXPANSION OF HEATED AIR IN A BALLOON MAY BE DUE TO FASTER MOVING MOLECULES.

CAN BE HEATED TO EXPAND A      BALLOON.

TLE CAN BE HEATED TO EXPAND A  BALLOON.


PORATION)
T THE MOLECULES MUST HAVE      PASSED INTO THE AIR WHEN WET MATERIALS DRIED.

Y WHEN WATER EVAPORATES FROM   THEM.

IALS DRY WHEN WATER EVAPORATES FROM THEM.


STANCE)
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0202275001	KNOW THAT SUGAR WILL DISSOLVE EVENLY IN WATER, AND THE PARTICL TASTED.
0202275002	DEMONSTRATE THAT SUGAR WILL DISSOLVE EVENLY IN WATER, AND THE BE TASTED.
0202275003	NAME THE PARTICLES IN SUGAR-WATER AS MOLECULES.
0202275004	KNOW THAT THE PARTICLES IN SUGAR-WATER ARE MOLECULES.
0202275005	KNOW THAT SUGAR MOLECULES IN WATER PASS THROUGH A COTTON FILTER, PARTICLES NOW VISIBLE.
0202275006	DEMONSTRATE THAT SUGAR MOLECULES IN WATER PASS THROUGH A COTTO LEAVING SUGAR PARTICLES NOW VISIBLE.
0202285	ENERGY TRANSFORMATION (WATER)
0202285001	KNOW THAT BOILING WATER CAUSES WATER TO CHANGE TO STEAM, AND THI
0202285002	DESCRIBE THAT BOILING WATER CAUSES WATER TO CHANGE TO STEAM,
0202285003	KNOW THAT BOILING WATER CAUSES STEAM, AND THAT THE STEAM TAKES U APART.
0202285004	DESCRIBE THAT BOILING WATER CAUSES STEAM, AND THAT THE STEAM T APART.
0202305	FUELS
0202305001	KNOW THAT OIL DROPS CAN SOAK INTO SANDSTONE.
0202305002	DEMONSTRATE THAT OIL DROPS CAN SOAK INTO SANDSTONE, THUS DEVELOP OF THE EARTH.

ENLY IN WATER, AND THE PARTICLES OF SUGAR WILL NOT BE VISIBLE BUT CAN BE

OLVE EVENLY IN WATER, AND THE PARTICLES OF SUGAR WILL NOT BE VISIBLE BUT CAN

R AS MOLECULES.

-WATER ARE MOLECULES.

ER PASS THROUGH A COTTON FILTER, AND THAT THE WATER CAN EVAPORATE LEAVING SUGAR

IN WATER PASS THROUGH A COTTON FILTER, AND THAT THE WATER CAN EVAPORATE
BLE.

ATER TO CHANGE TO STEAM, AND THIS CAN DO WORK.

ES WATER TO CHANGE TO STEAM, AND THIS CAN DO WORK.

TEAM, AND THAT THE STEAM TAKES UP MORE ROOM DUE TO MOLECULES MOVING FARTHER

ES STEAM, AND THAT THE STEAM TAKES UP MORE ROOM DUE TO MOLECULES MOVING FARTHER

D SANDSTONE.

OAK INTO SANDSTONE, THUS DEVELOPING A MODEL OF HOW OIL CAN BE HELD IN ROCK LAYERS

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0202305003      KNOW THAT THERE ARE THREE COMPONENT LEVELS OF AN OIL      SUPPLY

0202305004      IDENTIFY THREE COMPONENT LEVELS OF A MODEL OF AN OIL      SUPPLY
                FILLED WITH MARBLES), ---WATER, OIL, AND GAS.

0202305005      CONSTRUCT A MODEL OF AN OIL SUPPLY IN THE EARTH, BY       MIXING




0202365         HUMAN BODY (GROWTH)

0202365001      DESCRIBE GROWTH CHANGES, SINCE LAST YEAR, BY USING        GROWTH

0202365002      DEMONSTRATE HEIGHT AND WEIGHT, BY USING A TAPE MEASURE    AND SCAL



0202455         LIGHT

0202455001      KNOW THAT A BEAM OF SUNLIGHT PASSED THROUGH A PRISM       (OR DIFF
                OF THE SPECTRUM.

0202455002      DEMONSTRATE THAT A BEAM OF SUNLIGHT PASSES THROUGH A      PRISM (
                COLORS OF THE SPECTRUM.

0202455003      KNOW THAT LIGHT TRAVELS IN A STRAIGHT LINE AND IS         REFLECTE
                MIRROR, CAUSING THE LIGHT SPOT TO BE OBSERVED IN ANOTHER DIRECTIO

0202455004      DEMONSTRATE THAT LIGHT TRAVELS IN A STRAIGHT LINE AND IS REFLECTE
                MIRROR, CAUSING THE LIGHT SPOT TO BE OBSERVED IN ANOTHER DIRECTIO

0202455005      KNOW THAT AN IMAGE IS REFLECTED IN THE MIRROR, AND        APPEARS
                FRONT OF THE MIRROR.

0202455006      DEMONSTRATE THAT AN IMAGE IS REFLECTED IN THE MIRROR,     AND APPE
                FRONT OF THE MIRROR, BY USING MIRROR AND YARDSTICK FOR   MEASURIN

0202455007      KNOW THAT DIFFERENT AMOUNTS OF LIGHT PASS THROUGH         DIFFEREN
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ONENT LEVELS OF AN OIL     SUPPLY MODEL IN THE EARTH---WATER, OIL, AND GAS.

S OF A MODEL OF AN OIL     SUPPLY IN THE EARTH, (BY MIXING OIL AND WATER INTO A JAR
, OIL, AND GAS.

PPLY IN THE EARTH, BY      MIXING OIL AND WATER INTO A JAR FILLED WITH MARBLES.




 LAST YEAR, BY USING       GROWTH AND WEIGHT MEASUREMENTS.

 BY USING A TAPE MEASURE   AND SCALE.




ASSED THROUGH A PRISM      (OR DIFFRACTION GRATING), AND IS SEPARATED INTO COLORS

LIGHT PASSES THROUGH A     PRISM (OR DIFFRACTION GRATING), AND IS SEPARATED INTO

TRAIGHT LINE AND IS        REFLECTED WHEN A FLASHLIGHT BEAM IS DIRECTED AT A
 TO BE OBSERVED IN ANOTHER DIRECTION.

 IN A STRAIGHT LINE AND IS REFLECTED WHEN A FLASHLIGHT BEAM IS DIRECTED AT A
 TO BE OBSERVED IN ANOTHER DIRECTION.

D IN THE MIRROR, AND       APPEARS AS FAR INTO THE MIRROR AS THE PERSON IS IN

EFLECTED IN THE MIRROR,    AND APPEARS AS FAR INTO THE MIRROR AS THE STUDENT IS IN
MIRROR AND YARDSTICK FOR   MEASURING.

 LIGHT PASS THROUGH        DIFFERENT MATERIALS.
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0202455008	DEMONSTRATE THAT DIFFERENT AMOUNTS OF LIGHT PASS THROUGH DIFFERENT M TRANSPARENT, TRANSLUCENT, AND OPAQUE MATERIALS.
0202460	MACHINES
0202460001	AFTER LEARNING WHAT MACHINES DO FOR THEM, DRAMATIZE WHAT THE WORLD W
0202470	MACHINES (SIMPLE)
0202470001	IDENTIFY PULLEY SYSTEMS IN EVERYDAY OBJECTS.
0202470002	PREDICT WHETHER AN OBJECT WITH A PULLEY WILL MOVE MORE OR LESS EAS COMPLETE AN EXPERIMENT TO SEE IF YOU WERE RIGHT.
0202470003	PREDICT WHICH DIRECTION THE PULLEY CORD SHOULD BE PULLED IN ORDER TO AN EXPERIMENT TO SEE IF YOU WERE RIGHT.
0202470004	PREDICT WHETHER AN OBJECT ON ROLLERS OR WHEELS WILL MOVE MORE OR LES COMPLETE EXPERIMENT TO SEE IF YOU WERE RIGHT.
0202470005	IDENTIFY GEARS ON AN OBJECT.
0202470006	IDENTIFY THE FASTER GEAR ON AN OBJECT WITH TWO GEARS.
0202525	PLANTS (CAPILLARY ACTION)
0202525001	KNOW THAT WATER TRAVELS THROUGH THE STEM AND INTO THE LEAVES.
0202525002	DEMONSTRATE THAT WATER TRAVELS THROUGH THE STEM AND INTO THE LEAVES, CONTAINING DYE AND LEAVING IT THERE UNTIL THE COLOR APPEARS IN

TS OF LIGHT PASS THROUGH DIFFERENT MATERIALS, BY USING A WIDE VARIETY OF
PAQUE MATERIALS.

FOR THEM, DRAMATIZE WHAT THE WORLD WOULD BE LIKE WITHOUT A PARTICULAR MACHINE.

YDAY OBJECTS.

A PULLEY WILL MOVE MORE OR LESS EASILY THAN AN OBJECT WITHOUT A PULLEY.
F YOU WERE RIGHT.

LEY CORD SHOULD BE PULLED IN ORDER TO MAKE THE OBJECT MOVE UP OR DOWN. COMPLETE
E RIGHT.

LLERS OR WHEELS WILL MOVE MORE OR LESS EASILY THAN AN OBJECT WHICH IS NOT.
OU WERE RIGHT.

OBJECT WITH TWO GEARS.

THE STEM AND INTO THE LEAVES.

THROUGH THE STEM AND INTO THE LEAVES, BY PLACING CUT CELERY STALK IN WATER
HERE UNTIL THE COLOR APPEARS IN THE LEAF VEINS.

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0202560         PLANTS (NEEDS)

0202560001      KNOW THAT SEEDS NEED HEAT TO GROW.

0202560002      DEMONSTRATE THAT SEEDS NEED HEAT TO GROW, BY TRYING TO   SPROUT S
                PLACE, SHOWING THAT SEEDS GROW SUBJECT TO LIMITS OF      THEIR EN

0202560003      KNOW THAT A GREEN PLANT NEEDS WATER.

0202560004      DEMONSTRATE THAT A GREEN PLANT NEEDS WATER, BY GROWING   PLANTS I
                WATERING OTHERS.

0202560005      KNOW THAT A GREEN PLANT NEEDS LIGHT.

0202560006      DEMONSTRATE THAT A GREEN PLANT NEEDS LIGHT BY GROWING    SOME PLA


0202575         PLANTS (ROOTS)

0202575001      KNOW THAT GROWING SEEDS FORM ROOTS THAT GROW DOWNWARD    TOWARDS

0202575002      DEMONSTRATE THAT GROWING SEEDS FORM ROOTS THAT GROW      DOWNWARD
                GLASS CONTAINERS IN DIFFERENT POSITIONS.


0202580         PLANTS (SEEDS)

0202580001      IDENTIFY CONE, SCALE, AND SEED, BY OBSERVING MATURE PINE CONES.

0202580002      KNOW THAT PARTS OF A MATURE PINE CONE---CONE, SCALE,     AND SEED

0202580003      NAME PARTS AS CONE, SCALE, AND SEED ON MATURE PINE       CONES.

0202580004      DISTINGUISH BETWEEN GROWING BEAN AND CORN SEEDLINGS, BY  OBSERVIN
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) GROW.

HEAT TO GROW, BY TRYING TO SPROUT SOME SEEDS IN A WARM PLACE AND OTHERS IN A COLD
ROW SUBJECT TO LIMITS OF THEIR ENVIRONMENT.

DS WATER.

NT NEEDS WATER, BY GROWING PLANTS IN THE CLASSROOM AND BY WATERING SOME AND NOT

DS LIGHT.

NT NEEDS LIGHT BY GROWING SOME PLANTS IN LIGHT AND OTHERS IN DARK.

ROOTS THAT GROW DOWNWARD TOWARDS THE EARTH.

DS FORM ROOTS THAT GROW DOWNWARD TOWARDS THE EARTH, BY PLACING GROWING SEEDS IN
T POSITIONS.

ED, BY OBSERVING MATURE PINE CONES.

PINE CONE---CONE, SCALE, AND SEED.

ND SEED ON MATURE PINE CONES.

BEAN AND CORN SEEDLINGS, BY OBSERVING THEIR CHARACTERISTICS.

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0202580005      KNOW THAT GRASS PLANTS GROW FROM GRASS SEEDS,          ILLUSTR
                HEREDITY.

0202580006      DEMONSTRATE THAT GRASS PLANTS GROW FROM GRASS SEEDS,   ILLUSTR
                HEREDITY.

0202580007      DEMONSTRATE THAT EACH ORGANISM GIVES RISE TO ITS OWN   KIND, B

0202580008      KNOW THE DIFFFRENCES BETWEEN GROWING BEAN AND CORN     SEEDLIN

0202580009      IDENTIFY THE NEW PLANT AND FOOD FOR GROWTH IN LIMA     BEANS A




0202595         POLLUTION (WATER)

0202595001      DEMONSTRATE HOW WATER POLLUTION IS CAUSED AND PREDICT  WHAT WI
                EXIST.


0202600         POLLUTION (WATER AND AIR)

0202600001      DIVIDE INTO GROUPS AND GATHER INFORMATION ON AT LEAST  FIVE CA
                PAPER GIVING THEIR INFERENCES ON HOW ONE OF THE        POLLUTI


0202610         REPRODUCTION

0202610001      CLASSIFY ANIMAL MOTHERS INTO THESE TWO GROUPS:  MOTHERS  WHO HAVE

0202610002      MATCH ANIMAL PARENTS TO THEIR OFFSPRING.

0202610003      IDENTIFY THE TERMS MALE, FEMALE, PARENT, AND OFFSPRING  WHEN DI
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RASS SEEDS, ILLUSTRATING THAT AN ORGANISM IS THE PRODUCT OF ITS

FROM GRASS SEEDS, ILLUSTRATING THAT AN ORGANSIM IS THE PRODUCT OF ITS

ES RISE TO ITS OWN KIND, BY PLANTING BEAN AND CORN SEEDS.

NG BEAN AND CORN SEEDLINGS.

R GROWTH IN LIMA BEANS AND CORN SEEDS WHICH HAVE BEEN SOAKED IN WATER.

CAUSED AND PREDICT WHAT WILL HAPPEN IF THE POLLUTION FACTORS CONTINUE TO

RMATION ON AT LEAST FIVE CAUSES OF AIR OR WATER POLLUTION AND WRITE A SHORT
OW ONE OF THE POLLUTION FACTORS CAN BE ELIMINATED.

TWO GROUPS: MOTHERS WHO HAVE LIVING BABIES AND MOTHERS WHO LAY EGGS.

PRING.

ARENT, AND OFFSPRING WHEN DISCUSSING MEMBERS OF ANIMAL FAMILIES.

0202620	SCIENTIFIC METHOD
0202620001	KEEP AN ACCURATE RECORD OF OBJECTS USED IN EXPERIMENT
0202620002	AFTER COLLECTING INFORMATION ABOUT HOW ORGANISMS OF LISTS, NOTES, OR PICTURES.
0202620003	KEEP AN ACCURATE RECORD OF OBJECTS YOU HAVE OBSERVED
0202620004	FOLLOWING A QUESTION AND ANSWER PERIOD DEFINING THE MAKE A LIST OF AT LEAST THREE DIFFERENCES BETWEEN AN
0202625	SOIL
0202625001	EXPLAIN DIFFERENT WAYS ROCK IS BROKEN DOWN TO BECOME
0202625002	GIVEN A CROSS-SECTION OF SOILS, RECOGNIZE LAYERS AS
0202625003	DESCRIBE THE THINGS WE FIND IN DARK TOPSOIL THAT ARE NOT
0202625004	TELL THE THINGS SOIL MUST HAVE TO MAKE PLANTS GROW WELL.
0202625005	TELL HOW SOIL HELPS ANIMALS.
0202625006	TELL WAYS THAT ANIMALS HELP TO MAKE GOOD SOIL.
0202625007	TELL THE WAYS PLANTS HELP MAKE GOOD SOIL.
0202630	SOLAR SYSTEM
0202630001	KNOW THAT THE EARTH REVOLVES IN AN ORBIT AROUND THE SUN.

F OBJECTS USED IN EXPERIMENT AND THE RESULTS OF EXPERIMENT.

ION ABOUT HOW ORGANISMS INTERACT WITH THEIR ENVIRONMENT, RECORD IT IN THE FORMS
RES.

F OBJECTS YOU HAVE OBSERVED INTERACTING AT A DISTANCE (MAGNETISM).

ANSWER PERIOD DEFINING THE DIFFERENCE BETWEEN AN 'OBSERVATION' AND AN 'INFERENCE',
HREE DIFFERENCES BETWEEN AN OBSERVATION AND AN INFERENCE WITH 100 PER CENT ACCURACY.

CK IS BROKEN DOWN TO BECOME SOIL.

SOILS, RECOGNIZE LAYERS AS TOPSOIL, SUBSOIL, AND BEDROCK.

ND IN DARK TOPSOIL THAT ARE NOT FOUND IN SAND AND SUBSOIL.

HAVE TO MAKE PLANTS GROW WELL.

LS.

LP TO MAKE GOOD SOIL.

MAKE GOOD SOIL.

VES IN AN ORBIT AROUND THE SUN.

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0202630002      KNOW THAT THE EARTH ROTATES AS IT REVOLVES AROUND THE    SUN.

0202630003      DEMONSTRATE THAT THE EARTH ROTATES AS IT REVOLVES AROUND THE SU
                AND BY REVOLVING THE EARTH GLOBE AS IT IS MOVED AROUND   THE LA

0202630004      DEMONSTRATE THAT THE EARTH REVOLVES IN AN ORBIT AROUND   THE SU
                THE SUN AND EARTH.

0202630005      KNOW THAT THE LIGHTED AREA OF THE MOON CHANGES SHAPE, IN RELATI

0202630006      DEMONSTRATE HOW THE LIGHTED AREA OF THE MOON CHANGES     SHAPE,
                BY USING AN ORANGE AND A FLASHLIGHT.




0202640         SOUND

0202640001      KNOW THAT SOUND IS A RESULT OF SOMETHING MOVING.

0202640002      DEMONSTRATE THAT SOUND IS A RESULT OF SOMETHING MOVING,  BY USI
                BANDS.

0202640003      KNOW THAT SOUND TRAVELS THROUGH VARIOUS SUBSTANCES, SUCH AS WOO

0202640004      DEMONSTRATE THAT SOUND TRAVELS THROUGH VARIOUS           SUBSTA
                SIMPLE SOUND MAKERS.

0202640005      KNOW THAT SOME SOUNDS ARE HIGH AND SOME ARE LOW, BY      VARYIN

0202640006      DEMONSTRATE THAT SOME SOUNDS ARE HIGH AND SOME ARE LOW,  BY VAR
                MAKERS, SUCH AS DIFFERENT SIZE RUBBERBANDS ON A SOUND    BOX.

0202640007      KNOW THAT THE PAPER HORN HELPS THE EAR COLLECT MERE      SOUND.

0202640008      CONSTRUCT A PAPER HORN FOR LISTENING, USING CONSTRUCTION PAPER
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ES AS IT REVOLVES AROUND THE SUN.

H ROTATES AS IT REVOLVES AROUND THE SUN, BY USING AN EARTH GLOBE AND AN ELECTRIC LAMP,
H GLOBE AS IT IS MOVED AROUND THE LAMP.

H REVOLVES IN AN ORBIT AROUND THE SUN, BY USING A LARGE AND SMALL BALL AS MODELS OF

A OF THE MOON CHANGES SHAPE, IN RELATION TO THE SUN, EARTH, AND MOON POSITIONS.

ED AREA OF THE MOON CHANGES SHAPE, IN RELATION TO THE SUN, EARTH, AND MOON POSITIONS
FLASHLIGHT.

LT OF SOMETHING MOVING.

A RESULT OF SOMETHING MOVING, BY USING SIMPLE MATERIALS SUCH AS SOUND BOXES AND RUBBER

HROUGH VARIOUS SUBSTANCES, SUCH AS WOOD, WATER, AND AIR.

AVELS THROUGH VARIOUS SUBSTANCES, SUCH AS WOOD, WATER, AND AIR, BY USING

HIGH AND SOME ARE LOW, BY VARYING DIMENSIONS AND VIBRATING SPEED OF SOUND MAKERS.

NDS ARE HIGH AND SOME ARE LOW, BY VARYING DIMENSIONS AND VIBRATING SPEED OF SOUND
SIZE RUBBERBANDS ON A SOUND BOX.

HELPS THE EAR COLLECT MERE SOUND.

R LISTENING, USING CONSTRUCTION PAPER AND PAPER FASTENERS.

0202640009	DEMONSTRATE THAT THE PAPER HORN HELPS THE EAR COLLECT MORE SO LISTENS TO SOUNDS.
0202645	SYSTEMS (INTERACTIONS)
0202645001	FIND INFORMATION ABOUT HOW LIVING THINGS INTERACT WITH THEIR E
0202645002	EXPLAIN WHAT FACTORS WILL INFLUENCE THE GROWTH OF AN ORGANIS
0202645003	DESCRIBE HOW THINGS IN AN AQUARIUM INTERACT TO KEEP IT BALANCE
0202645004	TELL WHAT SHOULD BE ADDED TO THE CLASS AQUARIUM TO KEEP THE AQU
0202645005	PRESENT ORALLY TO A GROUP FINDINGS ABOUT HOW ORGANISMS INTERAC EXAMPLES.
0202645006	DEMONSTRATE THROUGH DRAWING, WRITING, OR SEQUENCING PICTURE ON THE SUN).
0202645007	CLASSIFY SYSTEMS OF OBJECTS ACCORDING TO WHETHER THEY SHOW EV
0202645008	FIND EVIDENCE OF INTERACTION BY COMPARING SIMILAR EXPERIM
0202645009	IDENTIFY INTERACTING OBJECTS IN DEMONSTRATIONS OR PICTURE
0202645010	RECOGNIZE EVIDENCE OF INTERACTION IN DEMONSTRATIONS OR PICTURE
0202645011	RECOGNIZE CONSERVATION WITHIN A SYSTEM IN WHICH OBJECTS CHANGE
0202645012	USING VARIOUS SENSES, FIND EVIDENCE OF INTERACTION.

PER HORN HELPS THE EAR COLLECT MORE SOUND, BY HOLDING THE HORN AGAINST HIS EAR WHILE H

HOW LIVING THINGS INTERACT WITH THEIR ENVIRONMENT. WRITE DOWN WHAT YOU FIND.

LL INFLUENCE THE GROWTH OF AN ORGANISM.

AN AQUARIUM INTERACT TO KEEP IT BALANCED.

ED TO THE CLASS AQUARIUM TO KEEP THE AQUARIUM BALANCED.

UP FINDINGS ABOUT HOW ORGANISMS INTERACT IN THEIR ENVIRONMENT USING PICTURES OR REAL

WING, WRITING, OR SEQUENCING PICTURES THE MEANING OF FOOD CHAIN, (INCLUDE DEPENDENCE

ECTS ACCORDING TO WHETHER THEY SHOW EVIDENCE OF INTERACTION AT A DISTANCE.

CTION BY COMPARING SIMILAR EXPERIMENTS.

JECTS IN DEMONSTRATIONS OR PICTURES.

NTERACTION IN DEMONSTRATIONS OR PICTURES.

WITHIN A SYSTEM IN WHICH OBJECTS CHANGE IN APPEARANCE.

IND EVIDENCE OF INTERACTION.

0202645013	IDENTIFY THE SENSE OR SENSES USED TO OBSERVE INTERACTION AT
0202650	SYSTEMS AND SUBSYSTEMS
0202650001	RECOGNIZE SYSTEMS OF INTERACTING OBJECTS.
0202650002	IDENTIFY SYSTEMS OF OBJECTS THAT INTERACT AT A DISTANCE.
0202650003	USE THE WORD SYSTEM CORRECTLY BY RECOGNIZING COMMON ELEM SYSTEM.
0202650004	USE THE WORD SYSTEM TO REFER TO A GROUP OF RELATED OBJE WHICH MAKE THEM PART OF THE SAME SYSTEM.

SES USED TO OBSERVE INTERACTION AT A DISTANCE. (MAGNETISM)

RACTING OBJECTS.

TS THAT INTERACT AT A DISTANCE.

TLY BY RECOGNIZING COMMON ELEMENTS OF OBJECTS WHICH MAKE THEM PART OF THE SAME

ER TO A GROUP OF RELATED OBJECTS AND RECOGNIZE THE COMMON ELEMENTS OF OBJECTS
HE SAME SYSTEM.

0203055	ANIMALS
0203055001	FILL IN OUTLINE. SHOW FIVE CLASSES OF ANIMALS AND 2-3 CHARACT
0203055002	PLACE CLASSES OF ANIMALS IN PROPER ENVIRONMENT.
0203055003	CHOOSE FRESH-WATER ANIMAL. TELL HOW IT ADAPTED TO ITS ENVIRON
0203055004	DESCRIBE HOW ONE SEA ANIMAL IS ADAPTED TO LIFE IN SEA.
0203055005	WRITE STORY ABOUT ANIMAL THAT LIVES IN SEA. DESCRIBE ITS ENV
0203055006	DESCRIBE THAT BACKBONES OF DIFFERENT ANIMALS, SUCH AS CHICKEN AND THAT EACH BONE HAS A HOLE IN THE MIDDLE.
0203055007	NAME THE BONES THAT MAKE UP A BACKBONE AS VERTEBRAE, ANIMALS WITHOUT BACKBONES AS INVERTEBRATES.
0203055008	KNOW THAT BACKBONES OF DIFFERENT ANIMALS ARE MADE OF BONES T THE MIDDLE.
0203055009	KNOW THE BONES THAT MAKE UP A BACKBONE AS VERTEBRAE, ANIMALS WITHOUT BACKBONES AS INVERTEBRATES.
0203055010	PREPARE TWO-PART ANIMAL BOOKLET OF VERTEBRATES AND INVERTEB
0203055011	GIVE CHARACTERISTICS OF VERTEBRATES.
0203090	CLASSIFY (MATTER)
0203090001	DEMONSTRATE 3 STATES OF MATTER AND ITS CHANGES. USE WATER.
0203090002	KNOW THE DIFFERENCES IN LIMA BEANS AND SIMILAR SIZED PEBBLES

IVE CLASSES OF ANIMALS AND 2-3 CHARACTERISTICS OF EACH.

IN PROPER ENVIRONMENT.

L. TELL HOW IT ADAPTED TO ITS ENVIRONMENT.

MAL IS ADAPTED TO LIFE IN SEA.

THAT LIVES IN SEA. DESCRIBE ITS ENVIRONMENT. DRAW PICTURES TO ILLUSTRATE STORY.

OF DIFFERENT ANIMALS, SUCH AS CHICKEN AND FISH, ARE MADE OF BONES THAT FIT TOGETHER
HOLE IN THE MIDDLE.

UP A BACKBONE AS VERTEBRAE, ANIMALS WITH BACKBONES AS VERTEBRATES, AND ANIMALS
ERTEBRATES.

IFFERENT ANIMALS ARE MADE OF BONES THAT FIT TOGETHER AND THAT EACH BONE HAS A HOLE I

UP A BACKBONE AS VERTEBRAE, ANIMALS WITH BACKBONES AS VERTEBRATES, AND ANIMALS
ERTEBRATES.

BOOKLET OF VERTEBRATES AND INVERTEBRATES.

VERTEBRATES.

MATTER AND ITS CHANGES. USE WATER.

LIMA BEANS AND SIMILAR SIZED PEBBLES AS LIVING AND NON-LIVING SUBSTANCES.

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0203090003       DISTINGUISH BETWEEN LIMA BEANS AND SIMILAR SIZED PEBBLES AS

0203090004       KNOW THAT LIMA BEANS ARE LIVING THINGS AND MAY BE KILLED BY

0203090005       DEMONSTRATE THAT LIMA BEANS ARE LIVING THINGS AND MAY    BE
                 BEANS BOILED IN WATER TEN MINUTES WILL NOT SPROUT AND    BEA

0203090006       KNOW THAT LIMA BEANS WILL CHANGE, AND SIMILAR SIZED      PEB
                 AS COMPARED TO THE SAME SUBSTANCES NOT BOILED.

0203090007       DESCRIBE THAT LIMA BEANS WILL CHANGE, AND SIMILAR SIZED  PEB
                 AS COMPARED TO THE SAME SUBSTANCES NOT BOILED.



0203100          CLASSIFY (PLANT AND ANIMAL)

0203100001       TELL POSSIBLE GEOGRAPHIC REASONS WHY PREHISTORIC PLANTS  AND

0203100002       TELL WHAT A FOSSIL IS.  TELL WHAT WE LEARN FROM FOSSILS.



0203120          ELECTRICITY

0203120001       BUILD AN ELECTRO MAGNET.

0203120002       CONSTRUCT AN ELECTROMAGNET USING A DRY CELL, AND COVERED COPP

0203120003       KNOW THAT A NAIL ACTS AS A MAGNET WHEN IT IS IN A COIL   OF

0203120004       DESCRIBE THAT A NAIL ACTS AS A MAGNET ONLY WHEN IT IS    IN A

0203120005       DEMONSTRATE THAT ELECTRIC ENERGY CAN MAKE THINGS MOVE,   BY U
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S AND SIMILAR SIZED PEBBLES AS LIVING AND NON-LIVING SUBSTANCES.

NG THINGS AND MAY BE KILLED BY EXTREMES SUCH AS HEAT.

RE LIVING THINGS AND MAY BE KILLED BY EXTREMES SUCH AS HEAT, BY SHOWING THAT
UTES WILL NOT SPROUT AND BEANS NOT BOILED WILL SPROUT.

NGE, AND SIMILAR SIZED PEBBLES WILL NOT CHANGE, WHEN THEY ARE BOILED IN WATER,
ANCES NOT BOILED.

CHANGE, AND SIMILAR SIZED PEBBLES WILL NOT CHANGE, WHEN THEY ARE BOILED IN WATER
ANCES NOT BOILED.

ONS WHY PREHISTORIC PLANTS AND ANIMALS ARE NO LONGER LIVING.

WHAT WE LEARN FROM FOSSILS.

ING A DRY CELL, AND COVERED COPPER WIRE TO FORM A COIL AROUND A LARGE NAIL.

GNET WHEN IT IS IN A COIL OF WIRE CONNECTED TO A DRY CELL.

A MAGNET ONLY WHEN IT IS IN A COIL OF WIRE CONNECTED TO A DRY CELL.

RGY CAN MAKE THINGS MOVE, BY USING THE ELECTROMAGNET TO LIFT PAPER CLIPS.

0203120006	KNOW THAT AN ELECTROMAGNET CAN MAKE A BELL RING.
0203120007	DEMONSTRATE THAT AN ELECTROMAGNET CAN MAKE A BELL RING, BY WIRI
0203120008	GIVEN ALL THE COMPONENTS TO CONSTRUCT A COMPLETE ELECTRI ON WHAT WILL HAPPEN IF ALL COMPONENTS ARE CORRECTLY CONNECT
0203120009	GIVEN WORKING COMPONENTS TO CONSTRUCT ELECTRICAL CIRCUIT AND ONE DEFECTIVE COMPONENT RETARDS WORKING PARTS FROM FUNCTIO
0203125	ENERGY TRANSFORMATION
0203125001	DISCOVER THAT ENERGY IS REQUIRED TO CAUSE MOVEMENT BY USING W
0203125002	EXPLAIN DIFFERENCE IN STORED ENERGY AND ENERGY OF MOTION.
0203125003	STATE THAT ENERGY CAN BE CHANGED NOT MADE.
0203125004	GIVE THE CORRECT DEFINITION OF THE FOLLOWING IN A MATCHIN MOLECULE.
0203130	ENERGY TRANSFORMATION (AIR)
0203130001	KNOW THAT MOVING AIR HAS ENERGY.
0203130002	CONSTRUCT A PINWHEEL, USING A ROUND PIECE OF CARDBOARD, KNITTIN
0203130003	DEMONSTRATE THAT WIND WILL HAVE ENERGY OF MOTION BY USE OF PINW
0203130004	DEMONSTRATE THAT MOVING AIR HAS ENERGY, BY USING THE PINWHEE PLACING IT IN FRONT OF AN ELECTRIC FAN.

NET CAN MAKE A BELL RING.

CTROMAGNET CAN MAKE A BELL RING, BY WIRING THE BELL INTO THE ELECTROMAGNET CIRCUIT.

S TO CONSTRUCT A COMPLETE ELECTRICAL CIRCUIT, DEMONSTRATE AND GIVE AN ORAL REPORT
ALL COMPONENTS ARE CORRECTLY CONNECTED.

S TO CONSTRUCT ELECTRICAL CIRCUIT AND ONE DEFECTIVE COMPONENT, DEMONSTRATE HOW ONE
ARDS WORKING PARTS FROM FUNCTIONING.

REQUIRED TO CAUSE MOVEMENT BY USING WATER AND A BOAT.

ORED ENERGY AND ENERGY OF MOTION.

CHANGED NOT MADE.

ION OF THE FOLLOWING IN A MATCHING TEST: SOLAR ENERGY, ENERGY, HEAT, AND

IR)

ENERGY.

ING A ROUND PIECE OF CARDBOARD, KNITTING NEEDLES, AND RUBBER BANDS.

L HAVE ENERGY OF MOTION BY USE OF PINWHEEL.

AIR HAS ENERGY, BY USING THE PINWHEEL AND CAUSING IT TO TURN BY BLOWING ON IT OR BY
ELECTRIC FAN.

0203140	ENERGY TRANSFORMATION (BURNING CANDLE)	
0203140001	DEMONSTRATE THAT WE GET LIGHT AND HEAT ENERGY WHEN A	F
0203185	ENERGY TRANSFORMATION (ELECTRIC)	
0203185001	KNOW THAT ELECTRIC ENERGY CAN MAKE THINGS MOVE.	
0203190	ENERGY TRANSFORMATION (ELEMENTS)	
0203190001	DEMONSTRATE AND ANSWER QUESTIONS ABOUT ELEMENT BEING	MA
0203195	ENERGY TRANSFORMATION (EVAPORATION)	
0203195001	KNOW THAT THE CHANGE FROM LIQUID TO GAS IS CALLED	EV
0203195002	NAME, AS EVAPORATION, THE PROCESS OF THE PERFUME	DI
0203195003	DEMONSTRATE THAT LIQUID CHANGES TO A GAS, BY PLACING A (EVAPORATE) WHILE THE ODOR REMAINS.	DR
0203195004	KNOW THAT A SOLID CAN CHANGE INTO A GAS WITHOUT CHANGING	FI
0203195005	DESCRIBE THAT A SOLID CAN CHANGE INTO A GAS WITHOUT MOTHBALLS GET SMALLER OVER A PERIOD OF TIME.	CH
0203200	ENERGY TRANSFORMATION (FOOD)	
0203200001	INFER THAT ENERGY FROM FOOD IS RESPONSIBLE FOR GROWTH	AN

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 CANDLE)
 AND HEAT ENFRGY WHFN A     FUEL BURNS.  (BY USE OF CANDLE).


C)

 MAKE THINGS MOVE.


S)

NS ABOUT ELFMENT BFING     MADE ONLY OF ITSELF.


TION)

ID TO GAS IS CALLED        EVAPORATION.

ESS OF THE PERFUME         DISAPPEARING AS IT CHANGES FROM A LIQUID TO A GAS.

S TO A GAS, BY PLACING A   DROP OF PERFUME INTO A BOTTLE, CAUSING IT TO DISAPPEAR
AINS.

NTO A GAS WITHOUT CHANGING FIRST TO A LIQUID.

GE INTO A GAS WITHOUT      CHANGING FIRST TO A LIQUID, BY OBSERVING THAT BITS OF
ERIOD OF TIME.


 RESPONSIBLE FOR GROWTH    AND THE ABILITY TO WORK.
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0203200002	DEMONSTRATE THAT FOOD IS A FUEL BY USE OF BUTTER CANDL
0203200003	DEMONSTRATE THAT FOOD HAS ENERGY, BY BURNING A PAT OF
0203200004	KNOW THAT FOOD HAS ENERGY.
0203210	ENERGY TRANSFORMATION (HEAT)
0203210001	KNOW THAT HEAT IS A FORM OF ENERGY.
0203210002	GIVE ONE EXAMPLE OF HEAT ENERGY DOING WORK.
0203210003	SHOW THAT HEATED AIR MOVES BY HOLDING PAPER STRIPS
0203210004	DEMONSTRATE THAT HEAT IS A FORM OF ENERGY, BY USING
0203210005	EXPLAIN HOW AN EXPERIMENT SHOWS THAT HEAT IS A FORM OF
0203210006	GIVEN OBJECTS, PREDICT WHICH OBJECT IS A HEAT CONDUCTOR AND TEST YOUR PREDICTIONS.
0203210007	DEMONSTRATE HOW APPLICATION OF HEAT BREAKS UP MOLECULE
0203225	ENERGY TRANSFORMATION (LIGHT AND SOUND)
0203225001	IDENTIFY DEFINITIONS OF LIGHTS AND SOUND AND HOW THEY

L BY USE OF BUTTER CANDLE.

GY, BY BURNING A PAT OF BUTTER THAT HAS BEEN FASHIONED INTO A CANDLE.

NERGY.

Y DOING WORK.

HOLDING PAPER STRIPS OVER THE RADIATOR.

RM OF ENERGY, BY USING CANDLES BELOW AN ALUMINUM FOIL PINWHEEL TO REVOLVER.

S THAT HEAT IS A FORM OF ENERGY.

BJECT IS A HEAT CONDUCTOR AND WHICH IS NOT, EXPLAIN WHY YOU PREDICTED IN THAT WAY.

F HEAT BREAKS UP MOLECULE OF SUGAR.

AND SOUND)

S AND SOUND AND HOW THEY TRAVEL. (I.E., SPEED THROUGH AIR, WATER, SOLIDS, ETC.)

0203230	ENERGY TRANSFORMATION (LIQUID)
02032300001	KNOW THAT LIQUID CHANGES TO A GAS.
0203240	ENERGY TRANSFORMATION (MIXTURE)
02032400001	KNOW THAT A MIXTURE CONTAINS SUBSTANCES THAT DO NOT CHANG
02032400002	DESCRIBE THAT A MIXTURE CONTAINS SUBSTANCES THAT DO NOT CHANG FILINGS AND THEN OBSERVING THE MIXTURE WITH A MAGNIFYING GLASS
02032400003	KNOW THAT A MIXTURE OF SUGAR AND IRON FILINGS CAN BE SEPAR MAGNET TO REMOVE THE IRON FILINGS.
02032400004	DEMONSTRATE THAT A MIXTURE OF SUGAR AND IRON FILINGS CAN BE SE MAGNET TO REMOVE THE IRON FILINGS.
02032400005	KNOW THAT A MIXTURE OF SUGAR AND SAND CAN BE CHANGED INTO DISSOLVING THE SUGAR, AND LEAVING THE SAND.
02032400006	DEMONSTRATE THAT A MIXTURE OF SUGAR AND SAND CAN BE CHANG WATER, DISSOLVING THE SUGAR, AND LEAVING THE SAND.
02032400007	KNOW HOW TO SEPARATE LIQUID FROM SAND, BY POURING THROU
02032400008	DEMONSTRATE HOW TO SEPARATE THE LIQUID FROM THE SAND, BY PO LEAVING THE SAND.
0203245	ENERGY TRANSFORMATION (MOLECULAR)
02032450001	KNOW THAT ODOR MUST BE DUE TO SOME OF THE TINIEST PARTS OF MO NOSE.
02032450002	DESCRIBE THAT THE ODOR MUST BE DUE TO SOME OF THE TINIE MOTHBALLS TO HIS NOSE.
02032450003	DEMONSTRATE AND/OR ANSWER QUESTIONS ABOUT SUGAR AS A COMPO

GAS.

E)

SUBSTANCES THAT DO NOT CHANGE WHEN MIXED TOGETHER.

INS SUBSTANCES THAT DO NOT CHANGE WHEN MIXED TOGETHER, BY MIXING SUGAR AND IRON
F MIXTURE WITH A MAGNIFYING GLASS.

AND IRON FILINGS CAN BE SEPARATED INTO THE ORIGINAL SUBSTANCES, BY USING A
INGS.

SUGAR AND IRON FILINGS CAN BE SEPARATED INTO THE ORIGINAL SUBSTANCES, BY USING A
INGS.

AND SAND CAN BE CHANGED INTO A NEW MIXTURE BY PUTTING THE MIXTURE IN WATER,
VING THE SAND.

SUGAR AND SAND CAN BE CHANGED INTO A NEW MIXTURE BY PUTTING THE MIXTURE IN
AND LEAVING THE SAND.

ROM SAND, BY POURING THROUGH THE MILK CARTON FILTER, LEAVING THE SAND.

HE LIQUID FROM THE SAND, BY POURING THE LIQUID THROUGH THE MILK CARTON FILTER,

LAR)

SOME OF THE TINIEST PARTS OF MOTHBALLS SPREADING FROM THE SOLID MOTHBALLS TO HIS

E DUE TO SOME OF THE TINIEST PARTS OF MOTHBALLS SPREADING FROM THE SOLID

STIONS ABOUT SUGAR AS A COMPOUND AND ITS THREE ELEMENTS.

0203245004	DEMONSTRATE AND/OR ANSWER QUESTIONS ABOUT THE BREAK UP	C
0203270	ENERGY TRANSFORMATION (SOLAR)	
0203270001	STATE THE EARTH'S CHIEF SOURCE OF RADIANT ENERGY.	
0203270002	EXPLAIN HOW WIND IS CAUSED BY HEAT FROM THE SUN.	
0203270003	STATE THAT THERE IS STORED ENERGY IN A FUEL AND THAT THAT ONCE GREW IN SUNLIGHT.	Y
0203270004	DEMONSTRATE THAT LIGHT (RADIANT ENERGY) CAN CHANGE INTO SUNLIGHT ONTO THE BULB OF A THERMOMETER, CAUSING THE	H L
0203270005	KNOW THAT LIGHT (RADIANT ENERGY) CAN CHANGE INTO HEAT.	
0203270006	USE A RADIOMETER TO DEMONSTRATE HOW LIGHT FROM THE SUN	C
0203275	ENERGY TRANSFORMATION (SUBSTANCE)	
0203275001	KNOW THAT A SOLID DISSOLVED IN SOLUTION CAN BE RECOVERED	A
0203275002	DEMONSTRATE THAT A SOLID DISSOLVED IN SOLUTION CAN BE HEATING THE WATER, CAUSING IT TO BOIL AWAY, LEAVING	R N
0203275003	KNOW THAT A SUBSTANCE CAN BE BROKEN APART INTO OTHER	S
0203275004	DEMONSTRATE THAT A SUBSTANCE CAN BE BROKEN APART INTO COLLECT ON A GLASS INVERTED OVER IT; ALSO CAUSING	O M

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UESTIONS ABOUT THE BREAK UP   OF A MOLECULE OF SUGAR.




R)

RCE OF RADIANT ENERGY.

BY HEAT FROM THE SUN.

ENERGY IN A FUEL AND THAT     THIS ENERGY WAS PROBABLEY STORED BY PLANTS AND ANIMALS

IANT ENERGY) CAN CHANGE INTO  HEAT, BY USING A MAGNIFYING GLASS AND BY FOCUSING
 THERMOMETER, CAUSING THE     LIQUID TO RISE.

ERGY) CAN CHANGE INTO HEAT.

RATE HOW LIGHT FROM THE SUN   CAN BE CHANGED TO ENERGY OF MOTION.



TANCE)

 IN SOLUTION CAN BE RECOVERED AS A SOLID.

SSOLVED IN SOLUTION CAN BE    RECOVERED AS A SOLID BY DISSOLVING SALT IN WATER; THEN
IT TO BOIL AWAY, LEAVING      NEARLY ORIGINAL AMOUNT OF SALT LEFT AS SOLID.

E BROKEN APART INTO OTHER     SUBSTANCES.

E CAN BE BROKEN APART INTO    OTHER SUBSTANCES, BY HEATING SUGAR, CAUSING STEAM TO
 OVER IT; ALSO CAUSING        MATERIAL LEFT TO TURN BLACK AND CHANGE.
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0203285	ENERGY TRANSFORMATION (WATER)
0203285001	KNOW THAT MOVING WATER HAS ENERGY.
0203285002	DEMONSTRATE THAT MOVING WATER HAS ENERGY, BY POURING WATER TO TURN.
0203285003	USE A PINWHEEL TO DEMONSTRATE THAT MOVING WATER CAN MOVE OBJEC
0203285004	KNOW THAT THE WEIGHT OF WATER DOES NOT CHANGE AS WATER CHANG
0203285005	DEMONSTRATE THAT THE WEIGHT OF WATER DOES NOT CHANGE AS WATER ICE BEFORE AND AFTER THE ICE MELTS.
0203285006	KNOW THAT WATER CAN BE CHANGED QUICKLY FROM SOLID TO GAS
0203285007	DEMONSTRATE THAT WATER CAN BE CHANGED QUICKLY FROM SOLID TO GA BOILING.
0203300	FORCE AND MOTION
0203300001	GIVEN A 4 WHEELED CART AND RAMP, SHOW BY DEMONSTRATION WHICH
0203350	HUMAN BODY (EAR)
0203350001	IDENTIFY THESE PARTS OF THE EAR AND TELL WHAT THEY DO. OUTER DRUM, HAMMER, ANVIL, COCHLEA, AND NERVE.
0203360	HUMAN BODY (EYE)
0203360001	IDENTIFY THESE PARTS OF THE EYE AND TELL WHAT THEY DO. EYELID

ERGY.

HAS ENERGY, BY POURING WATER OVER THE PINWHEEL, CAUSING THE VANES OF THE WHEEL

THAT MOVING WATER CAN MOVE OBJECTS.

DOES NOT CHANGE AS WATER CHANGES FROM LIQUID TO SOLID.

WATER DOES NOT CHANGE AS WATER CHANGES FROM LIQUID TO SOLID BY WEIGHING A JAR OF
MELTS.

QUICKLY FROM SOLID TO GAS

CHANGED QUICKLY FROM SOLID TO GAS BY PLACING A PAN OF ICE OVER HIGH HEAT, CAUSING

P, SHOW BY DEMONSTRATION WHICH WAY THE CART PULLS EASIEST---UP THE RAMP OF DOWN.

R AND TELL WHAT THEY DO. OUTER EAR, MIDDLE EAR, INNER EAR, PINNA, EAR CANAL, EAR
AND NERVE.

E AND TELL WHAT THEY DO. EYELID, EYELASHES, IRIS, PUPIL, AND TEAR DUCT.

0203445	INSECTS
0203445001	RECOGNIZE WHEN A PICTURE OF AN INSECT IS IN AN ADULT, EGG, LA THEY OCCUR.
0203455	LIGHT
0203455001	GIVEN A SERIES OF PICTURES OF OBJECTS OR ACTUAL OBJECTS, RECOGNI
0203470	MACHINES (SIMPLE)
0203470001	IDENTIFY DEFINITIONS OF A SIMPLE MACHINE.
0203470002	TELL THE BENEFITS OF SIMPLE MACHINES.
0203470003	RECOGNIZE WHICH TYPE OF SIMPLE MACHINE (INCLINED PLANE, WEDGE,
0203470004	RECOGNIZE WHICH TYPE OF SIMPLE MACHINE (PULLEY, SCREW, OR WHEE
0203470005	DESCRIBE THE SIMPLE MACHINES YOU HAVE OBSERVED IN YOUR OWN HOM
0203525	PLANTS (CAPILLARY ACTION)
0203525001	KNOW THAT WATER CAN MOVE UP A SUBSTANCE.
0203525002	KNOW THAT THE FORCE THAT CAUSES THE LIQUID TO RISE UP THE BLO
0203525003	DEMONSTRATE HOW WATER CAN MOVE UP A SUBSTANCE, BY PLACING AND ANOTHER IN WATER CONTAINING RED INK, CAUSING BOTH LIQUIDS

INSECT IS IN AN ADULT, EGG, LARVA OR PUPA STAGE. RECOGNIZE THE ORDER IN WHICH

BJECTS OR ACTUAL OBJECTS, RECOGNIZE IF THE OBJECT PRODUCES OR REFLECTS LIGHT.

E MACHINE.

HINES.

MACHINE (INCLINED PLANE, WEDGE, LEVER) IS BEING USED IN A GIVEN SITUATION.

ACHINE (PULLEY, SCREW, OR WHEEL) IS BEING USED IN A GIVEN SITUATION.

HAVE OBSERVED IN YOUR OWN HOME.

BSTANCE.

THE LIQUID TO RISE UP THE BLOTTER IS SIMILAR TO THAT WHICH WORKS IN PLANTS.

P A SUBSTANCE, BY PLACING ONE STRIP OF BLOTTER PAPER IN A GLASS OF WATER
RED INK, CAUSING BOTH LIQUIDS TO RISE UP THE BLOTTERS.

0203525004	DESCRIBE THAT THE FORCE THAT CAUSES THE LIQUID TO RISE UP THE BLO
0203525005	KNOW THAT A SOLUTION WILL MOVE UP A PLANT STEM.
0203525006	DEMONSTRATE THAT A SOLUTION WILL MOVE UP A PLANT STEM BY PLACING A AND BY OBSERVING THAT IN TIME THE COLOR APPEARS IN THE LEAVES.
0203545	PLANTS (GROWTH)
0203545001	KNOW THAT ALL GREEN PLANTS MAKE FOOD.
0203545002	DEFINE CHLOROPHYLL.
0203545003	MAKE DISPLAY OF PLANTS THAT DO NOT MAKE FOOD.
0203555	PLANTS (MOLDS)
0203555001	NAME THE THINGS GROWING AS MOLDS, WHICH ARE FUNGI PLANTS ON MOLDED B
0203560	PLANTS (NEEDS)
0203560001	KNOW THE CONDITIONS UNDER WHICH A PLANT THAT IS NOT GREEN WILL
0203560002	DEMONSTRATE CONDITIONS UNDER WHICH PLANT THAT IS NOT GREEN WILL BREAD AND TOAST WETTED WITH DIFFERENT AMOUNTS OF WATER CAUSING NON
0203560003	KNOW THAT PLANTS FLOODED WITH WATER NOT ONLY HAVE TOO MUCH WATER, SOIL, AND IN A SENSE ARE DROWNING IN WATER.

SES THE LIQUID TO RISE UP THE BLOTTER IS SIMILAR TO THAT WHICH WORKS IN PLANTS

P A PLANT STEM.

MOVE UP A PLANT STEM BY PLACING A CUT CELERY STALK INTO WATER CONTAINING DYE,
E COLOR APPEARS IN THE LEAVES.

FOOD.

OT MAKE FOOD.

, WHICH ARE FUNGI PLANTS ON MOLDED BREAD.

A PLANT THAT IS NOT GREEN WILL GROW.

CH PLANT THAT IS NOT GREEN WILL GROW PLACING IN DIFFERENT LOCATIONS FRESH
ERENT AMOUNTS OF WATER CAUSING NONGREEN PLANT GROWTH ON SOME.

TER NOT ONLY HAVE TOO MUCH WATER, BUT ARE NOT GETTING ENOUGH OXYGEN FROM THE
G IN WATER.

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0203560004     DESCRIBE THAT PLANTS FLOODED WITH WATER NOT ONLY HAVE     TOO MUCH WAT
               THE SOIL, AND IN A SENSE ARE DROWNING IN WATER.

0203560005     KNOW THAT GROWING PLANTS MAY DIE FROM TOO MUCH WATER AS   WELL AS FROM

0203560006     DEMONSTRATE THAT PLANTS MAY DIE FROM TOO MUCH WATER, OR   FROM COMPLET
               RADISH PLANTS, NOT WATERING ONE, WETTING ONE AND          DROWNING ONE

0203560007     KNOW THE EFFECT OF SUNLIGHT AND LACK OF SUNLIGHT ON       GREEN LEAVES

0203560008     DEMONSTRATE THE EFFECT OF SUNLIGHT AND LACK OF SUNLIGHT   ON GREEN LEA
               PAPER FOR TWO DAYS, AND THEN OBSERVING THE PALE COLOR OF  THE COVERED



0203570        PLANTS (PARTS)

0203570001     KNOW THE DIFFERENT PARTS OF A FLOWER AS PETALS, STAMENS,  POLLEN, PIST

0203570002     NAME PARTS OF A FLOWER, AS PETALS, STAMENS, POLLEN,       PISTIL, AND

0203570003     IDENTIFY DIFFERENT PARTS OF A FLOWER BY OBSERVING WITH    A MAGNIFYING

0203570004     KNOW THE DIFFERENCE BETWEEN PARTS OF A PLANT THAT LOOK    GREEN (LEAVE

0203570005     DISTINGUISH BETWEEN PARTS OF A PLANT THAT LOOK GREEN      (LEAVES) AND

0203570006     KNOW THAT THE GREEN COLOR IN THE LEAVES CAN BE REMOVED.

0203570007     DEMONSTRATE THAT GREEN COLOR IN THE LEAVES CAN BE         REMOVED BY S
               CAUSING ALCOHOL TO TURN GREEN;  THAT NO COLOR OCCURS      WHEN ROOTS A
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2 OF 4

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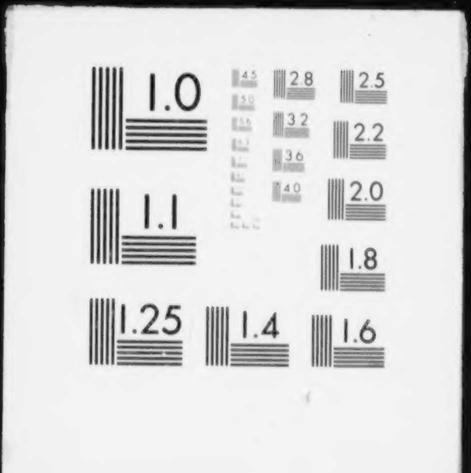
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

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 WITH WATER NOT ONLY HAVE    TOO MUCH WATER, BUT ARE NOT GETTING ENOUGH OXYGEN FROM
 DROWNING IN WATER.

 DIE FROM TOO MUCH WATER AS  WELL AS FROM COMPLETE LACK OF WATER.


DIE FROM TOO MUCH WATER, OR  FROM COMPLETE LACK OF WATER, BY USING THREE POTS OF
ONE, WETTING ONE AND         DROWNING ONE, NOTING OUTCOME.

AND LACK OF SUNLIGHT ON      GREEN LEAVES.


NLIGHT AND LACK OF SUNLIGHT  ON GREEN LEAVES, BY COVERING SOME LEAVES WITH CARBON
 OBSERVING THE PALE COLOR OF THE COVERED LEAVES.






A FLOWER AS PETALS, STAMENS, POLLEN, PISTIL, AND OVULES.


ETALS, STAMENS, POLLEN,      PISTIL, AND OVULES.


A FLOWER BY OBSERVING WITH   A MAGNIFYING GLASS.


PARTS OF A PLANT THAT LOOK   GREEN (LEAVES) AND PARTS THAT DO NOT LOOK GREEN (ROOTS).


 A PLANT THAT LOOK GREEN     (LEAVES) AND PARTS THAT DO NOT LOOK GREEN (ROOTS).


 THE LEAVES CAN BE REMOVED.


 IN THE LEAVES CAN BE        REMOVED BY SOAKING GREEN LEAVES IN WARMED ALCOHOL
N;  THAT NO COLOR OCCURS     WHEN ROOTS ARE TREATED IN SAME WAY.
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0203575	PLANTS (ROOTS)
0203575001	KNOW THE DIFFERENCE BETWEEN ROOT HAIRS ON THE MAIN ROOT OF A GROWI FOOD MARKET.
0203575002	IDENTIFY ROOT HAIRS ON THE MAIN ROOT OF A GROWING RADISH PLANT, AND OBSERVING WITH A MAGNIFYING GLASS.
0203615	REPTILES (EXTINCT)
0203615001	TELL WHAT EXTINCT MEANS.
0203615002	TELL WHY DINOSAURS ARE EXTINCT.
0203625	SOIL
0203625001	EXPLAIN 'THE EARTH'S GREATEST TREASURES ARE IN THE SOIL.'
0203625002	DO RESEARCH IN LIBRARY AND IN COMMUNITY TO FIND OUT HOW TO CONSERVE
0203625003	KNOW THAT DIFFERENT KINDS OF SOILS HOLD VARYING AMOUNTS OF WATER.
0203625004	DEMONSTRATE DIFFERENT KINDS OF SOILS HOLDING VARYING AMOUNTS OF POURING EQUAL AMOUNTS OF WATER; OBSERVING DIFFERENT AMOUNTS OF
0203625005	KNOW THAT HUMUS SOIL HOLDS MORE WATER THAN GARDEN SOIL AND THAT GA
0203625006	IDENTIFY THAT HUMUS SOIL HOLDS MORE WATER THAN GARDEN SOIL AND TH
0203625007	KNOW THAT GARDEN SOIL CONTAINS WATER, A LIQUID.
0203625008	DEMONSTRATE THAT GARDEN SOIL CONTAINS A LIQUID (WATER) BY HEATING DROPS OF LIQUID TO COLLECT ON THE INSIDE OF THE POT.

AIRS ON THE MAIN ROOT OF A GROWING RADISH PLANT, AND ON A RADISH PLANT FROM

OT OF A GROWING RADISH PLANT, AND ON A RADISH PLANT FROM A FOOD MARKET,

SURES ARE IN THE SOIL.'

UNITY TO FIND OUT HOW TO CONSERVE SOIL.

HOLD VARYING AMOUNTS OF WATER.

LS HOLDING VARYING AMOUNTS OF WATER BY PLACING DIFFERENT TYPE INTO TIN CAN
BSERVING DIFFERENT AMOUNTS OF WATER PASSING THROUGH SOIL.

TER THAN GARDEN SOIL AND THAT GARDEN SOIL HOLDS MORE WATER THAN SAND.

E WATER THAN GARDEN SOIL AND THAT GARDEN SOIL HOLDS MORE WATER THAN SAND.

ER, A LIQUID.

INS A LIQUID (WATER) BY HEATING SOIL IN A COVERED GLASS COOKING POT, CAUSING
INSIDE OF THE POT.

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0203625009      KNOW THAT GARDEN SOIL CONTAINS AIR.

0203625010      DEMONSTRATE THAT GARDEN SOIL CONTAINS AIR, BY POURING    WATER SLO
                FROM THE SOIL UP THROUGH THE WATER AND OUT INTO THE AIR.

0203625011      KNOW THAT GARDEN SOIL CONTAINS MATERIALS THAT WILL PASS  THROUGH A

0203625012      DEMONSTRATE THAT DISSOLVED MATERIALS IN WATER-SOIL       MIXTURE C
                COLLECTED THROUGH FILTER INTO A SHALLOW GLASS PAN,       ALLOWING

0203625013      KNOW THAT THE SUBSTANCES LEFT AFTER EVAPORATION OF       WATER-SOI

0203625014      NAME, AS MINERALS, THE SUBSTANCES LEFT FROM EVAPORATION  OF THE WA

0203625015      KNOW THAT DISSOLVED MATERIALS IN THE WATER-SOIL MIXTURE  CAN BE REC

0203625016      DEMONSTRATE THAT SOIL CONTAINS MATERIALS THAT WILL PASS  THROUGH A
                POURING THE MIXTURE INTO A FILTER, CAUSING THE CLOUDY    LIQUID TO



0203630         SOLAR SYSTEM

0203630001      STATE THE 'BIG IDEA' OF THIS UNIT---ALL THE PLANETS AND  THEIR MOON

0203630002      USING A PICTURE SHOWING POSITION OF PLANETS AND THE SUN, TELL WHICH
                THAN THE EARTH.

0203630003      NAME THE PLANETS IN ORDER OF THEIR DISTANCE FROM THE     SUN.

0203630004      EXPLAIN WHY WE THINK THAT EARTH IS THE ONLY PLANET ON    WHICH WE

0203630005      TELL WHICH PLANET HAS MANY GREEN PLANTS AND MANY         ANIMALS.
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R.

AINS AIR, BY POURING WATER SLOWLY OVER SOIL IN A JAR, CAUSING BUBBLES TO RIS
R AND OUT INTO THE AIR.

TERIALS THAT WILL PASS THROUGH A FILTER.

ALS IN WATER-SOIL MIXTURE CAN BE RECOVERED, BY POURING CLOUDY WATER
HALLOW GLASS PAN, ALLOWING LIQUID TO EVAPORATE, LEAVING SUBSTANCES.

ER EVAPORATION OF WATER-SOIL MIXTURE ARE CALLED MINERALS.

LEFT FROM EVAPORATION OF THE WATER-SOIL MIXTURE.

THE WATER-SOIL MIXTURE CAN BE RECOVERED.

TERIALS THAT WILL PASS THROUGH A FILTER, BY MIXING GARDEN SOIL AND WATER; THE
, CAUSING THE CLOUDY LIQUID TO PASS THROUGH.

---ALL THE PLANETS AND THEIR MOONS GET THEIR ENERGY FROM THE SUN.

OF PLANETS AND THE SUN, TELL WHICH TWO PLANETS RECEIVE MORE HEAT FROM THE SUN

R DISTANCE FROM THE SUN.

S THE ONLY PLANET ON WHICH WE COULD LIVE.

PLANTS AND MANY ANIMALS.

0203630006	TELL DIFFERENCE BETWEEN ROTATION AND REVOLUTION OF THE EARTH.
0203630007	RECOGNIZE HOW ROTATION AND REVOLUTION CAUSE CHANGES IN LENGTH OF EARTH.
0203630008	USE A PLANETARIUM AND KNOWLEDGE GAINED FROM INDIVIDUAL STUDY TO D FROM THE SUN, AND ITS REVOLUTION AND ROTATION DETERMINE WHAT IT IS
0203630009	USING A PICTURE SHOWING POSITION OF PLANETS AND THE SUN, TELL WHICH HEAT FROM THE SUN.
0203630010	DEMONSTRATE THE PATH OF THE MOON, BY USING PEOPLE AS MODELS OF MOON AROUND THE EARTH SO THAT THE STUDENT-MOON ALWAYS FACES THE
0203630011	KNOW THE PATH OF THE MOON IN RELATIONSHIP TO THE SUN AND EARTH.
0203630012	DESCRIBE THAT ONE SIDE OF THE MOON ALWAYS FACES THE EARTH BUT WAY THE STUDENT FACES AS THE PATH OF THE MOON IS DEMONSTRAT
0203630013	KNOW THAT ONE SIDE OF THE MOON ALWAYS FACES THE EARTH BUT DOES N
0203630014	USE A PLANETARIUM AND SHOW HOW AND WHY THE MOON APPEARS TO CHANGE.
0203630015	DESCRIBE SIZE, SHAPE, COLOR, STATE OF MATTER, AND TEMPERATUR
0203630016	IF GIVEN ACCESS TO TELESCOPE, COMPARE HOW THE MOON LOOKS THROUGH A
0203630017	USE MATHEMATICAL EQUATION TO SHOW HOW THE MASS OF MOON AFFECTS THE
0203640	SOUND
0203640001	DEMONSTRATE HOW SOUNDS WILL BE DIFFERENT WHEN MADE BY DIFFERENT

ION AND REVOLUTION OF THE EARTH.

VOLUTION CAUSE CHANGES IN LENGTH OF DAYLIGHT AND TYPE OF SEASON ON GIVEN AREA OF

GE GAINED FROM INDIVIDUAL STUDY TO DISCUSS HOW THE SIZE OF A PLANET, ITS POSITIO
ION AND ROTATION DETERMINE WHAT IT IS LIKE.

ION OF PLANETS AND THE SUN, TELL WHICH PLANET HAS MOST NEARLY THE SAME AMOUNT OF

OON, BY USING PEOPLE AS MODELS OF THE MOON, EARTH, AND SUN, AND BY MOVING THE
THE STUDENT-MOON ALWAYS FACES THE EARTH.

RELATIONSHIP TO THE SUN AND EARTH.

MOON ALWAYS FACES THE EARTH BUT DOES NOT ALWAYS FACE THE SUN, BY OBSERVING TH
ATH OF THE MOON IS DEMONSTRATED.

N ALWAYS FACES THE EARTH BUT DOES NOT ALWAYS FACE THE SUN.

W AND WHY THE MOON APPEARS TO CHANGE.

STATE OF MATTER, AND TEMPERATURE OF SUN AND EARTH.

COMPARE HOW THE MOON LOOKS THROUGH A TELESCOPE WITH HOW IT LOOKS TO THE EYE.

SHOW HOW THE MASS OF MOON AFFECTS THE WEIGHT OF AN OBJECT ON THE MOON.

E DIFFERENT WHEN MADE BY DIFFERENT OBJECTS.

0203650	SYSTEMS AND SUBSYSTEMS
0203650001	IDENTIFY DEFINITIONS AND EXAMPLES OF SYSTEMS.
0203650002	NAME THE PARTS OF A SOLUTION THAT ARE SUBSYSTEMS OF THAT SOLUTION.
0203650003	NAME THE PARTS OF A FILTERING SYSTEM AND TELL WHAT THEY DO.
0203650004	IDENTIFY DEFINITIONS AND EXAMPLES OF SUBSYSTEMS.

0204005	ADAPTATION (ANIMALS)
0204005001	KNOW HOW THE EMBRYONIC STRUCTURES ARE A SPECIAL ADAPTATION T
0204005003	GIVEN DESCRIPTION OR PICTURE OF THE COLORING OF ANIMAL AND ANIMAL'S WOULD SURVIVE BY BLENDING WITH ITS HABITAT.
0204005004	TELL HOW BODY COVERINGS HELP ANIMALS TO ADAPT TO CERTAIN CLIMATES.
0204005005	MATCH ILLUSTRATIONS OF FOLLOWING ANIMAL STRUCTURES WITH TASK FOR WHI FEET, HOOFS, TOES, WINGS, FINS.
0204005006	MATCH MOUTH ADAPTATIONS TO KINDS OF FOOD TO BE GATHERED BY AN ANIMAL
0204005007	MATCH BREATHING STRUCTURE (LUNGS OR GILLS) OF COMMON ANIMAL TO HA
0204005008	MATCH DEFINITIONS WITH FOLLOWING TERMS: BIRTH, DEATH, SURVIVE, ADA
0204010	ADAPTATION (BEHAVIOR)
0204010001	KNOW THAT BEHAVIOR MAY BE INBORN OR LEARNED.
0204010002	KNOW THAT ALL ORGANISMS HAVE INBORN BEHAVIOR THAT ADAPTS THEM TO THEI
0204010003	DEMONSTRATE HOW ORGANISMS BECAUSE OF THEIR INBORN BEHAVIOR ADA
0204020	ADAPTATION (FOOD)
0204020001	KNOW THAT LIVING THINGS NEED A FOOD SUPPLY.
0204020002	KNOW THAT AN ORGANISM NEEDS FOOD FOR GROWTH.

S ARE A SPECIAL ADAPTATION TO ENVIRONMENT.

THE COLORING OF ANIMAL AND ANIMAL'S HABITAT, EXPLAIN WHETHER OR NOT ANIMAL
TS HABITAT.

MALS TO ADAPT TO CERTAIN CLIMATES.

ANIMAL STRUCTURES WITH TASK FOR WHICH THEY ARE BEST SUITED: CLAWS, WEBBED

OF FOOD TO BE GATHERED BY AN ANIMAL.

OR GILLS) OF COMMON ANIMAL TO HABITAT FOR WHICH IT IS BEST SUITED.

TERMS: BIRTH, DEATH, SURVIVE, ADAPT, AND EXTINCT.

OR LEARNED.

ORN BEHAVIOR THAT ADAPTS THEM TO THEIR ENVIRONMENT.

E OF THEIR INBORN BEHAVIOR ADAPT TO VARIOUS ENVIRONMENTS.

OOD SUPPLY.

FOR GROWTH.

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0204025        ADAPTATION (HABITAT)

0204025001     KNOW THAT A LIVING THING REPRODUCES ITSELF AND DEVELOPS  IN A 

0204025002     KNOW THAT DIFFERENT ANIMALS ARE ADAPTED TO DIFFERENT     SPECIA

0204025003     KNOW THAT LIVING THINGS ARE DEPENDENT ON A PARTICULAR    ENVIRO

0204025004     KNOW WHY THE LIFE CYCLE OF AN ANIMAL IS ADAPTED TO THE   SPECIA

0204025005     KNOW THAT A LIVING THING IS DEPENDENT ON ALL THE         CONDIT
               ENVIRONMENT.

0204025006     KNOW THAT THE ENVIRONMENT OF A LIVING THING INCLUDES ALL SURROU
               DIFFERENT PLANTS HAVE ADOPTED TO DIFFERENT ENVIRONMENTS.

0204025007     TELL WHAT MOST ORGANISMS NEED TO STAY ALIVE.

0204025008     KNOW HOW LIVING THINGS CAPTURE MATTER FROM THE           ENVIRO

0204025009     KNOW HOW A LIVING THING MAY BE ADAPTED TO DIFFERENT      ENVIRO

0204025010     GIVE THE DEFINITION OF HABITAT.

0204025011     IDENTIFY DEFINITION OF HABITAT.  MATCH ORGANISMS WITH    PICTUR
               THEY ARE BEST ADAPTED.

0204025012     SHOW UNDERSTANDING OF ADAPTATION TO ENVIRONMENT BY       GIVING
               DIFFERENT ENVIRONMENTS.


0204030        ADAPTATION (MAN)

0204030001     KNOW HOW KNOWLEDGE OF CONCEPTS, WHETHER OBTAINED BY      TRIAL
               TO KEEPING MAN ALIVE.
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RODUCES ITSELF AND DEVELOPS IN A GIVEN ENVIRONMENT.

ARE ADAPTED TO DIFFERENT SPECIAL ENVIRONMENTS.

DEPENDENT ON A PARTICULAR ENVIRONMENT.

N ANIMAL IS ADAPTED TO THE SPECIAL ENVIRONMENT, OR HABITAT.

DEPENDENT ON ALL THE CONDITIONS AND ALL OTHER LIVING THINGS IN ITS

A LIVING THING INCLUDES ALL SURROUNDING CONDITIONS THAT AFFECT ITS GROWTH.
D TO DIFFERENT ENVIRONMENTS.

D TO STAY ALIVE.

RE MATTER FROM THE ENVIRONMENT AND RETURN IT TO THE ENVIRONMENT.

BE ADAPTED TO DIFFERENT ENVIRONMENTS.

AT.

AT. MATCH ORGANISMS WITH PICTURES, DESCRIPTIONS, OR NAMES OF HABITATS TO WHICH

TION TO ENVIRONMENT BY GIVING TWO EXAMPLES OF LIVING THINGS NEEDING SPECIAL AN

TS, WHETHER OBTAINED BY TRIAL AND ERROR OR BY INVESTIGATION, HAS BEEN ESSENTIAL

0204030002	EXPLAIN HOW, BY USING HIS BRAIN TO MODIFY THE ENVIRON WHICH HE IS NOT STRUCTURALLY ADAPTED.
0204030003	ENGAGE IN A PROJECT AND DEMONSTRATE, USING A VARIETY OF MEDIA, SCIENCE CONCEPTS, HAS BEEN ALTERED BY HUMAN ACTIVITIES.
0204035	ADAPTATION (PLANTS)
0204035001	MATCH DESCRIPTIONS OR DRAWINGS OF SEEDS WITH MEANS BY WHICH PLANT TO ANOTHER PLANT.
0204045	AIR
0204045001	KNOW THAT NITROGEN IS THE MOST PLENTIFUL GAS IN THE AIR.
0204045002	KNOW THAT ABOUT ONE FIFTH OF AIR IS OXYGEN.
0204045003	KNOW WARM AIR IS FORCED UPWARD BY COOLER AIR SURROUNDING IT.
0204045004	KNOW HOW AIR CAN BE COLLECTED AND CLEANED BY THE DISPLAC
0204055002	KNOW HOW ANIMALS HAVE BEEN ADAPTED TO MEET THE NEEDS OF THEIR E
0204060	BIRDS
0204060001	DESCRIBE A CHICKEN EGG, BY OBSERVING WITH A HAND LENS THE OUT
0204060002	IDENTIFY PARTS OF THE CHICKEN EGG AS SHELL, MEMBRANE, YOLK, A WHEN IT JOINS WITH SPERM.

MODIFY THE ENVIRONMENT, MAN IS ABLE TO LIVE IN ENVIRONMENTS TO
D.

, USING A VARIETY OF MEDIA, HOW PHYSICAL ENVIRONMENT IN AT LEAST TWO AREAS O
BY HUMAN ACTIVITIES.

EEDS WITH MEANS BY WHICH THEY TRAVEL (WIND, WATER, OR ANIMALS) FROM PARENT

TIFUL GAS IN THE AIR.

OXYGEN.

OOLER AIR SURROUNDING IT.

LEANED BY THE DISPLACEMENT METHOD.

TO MEET THE NEEDS OF THEIR ENVIRONMENT.

G WITH A HAND LENS THE OUTSIDE AND INSIDE OF THE EGG.

S SHELL, MEMBRANE, YOLK, AND WHITE SPECK ON THE YOLK, WHICH BECOMES EMBRYO

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0204060003     KNOW WHY IN BOTH STRUCTURE AND BEHAVIOR (MIGRATION) THE  DUCK IS AD

0204060004     TELL OR ILLUSTRATE (BY DRAWING, ETC.) HOW A DUCK IS      ADAPTED F
               THE EGG IS ADAPTED TO THE LIFE OF THE EMBRYO.



0204065        CELLS

0204065001     KNOW THAT LIVING THINGS ARE MADE OF CELLS.  THEY HAVE A  COMPLEX S

0204065002     KNOW HOW LIVING THINGS GROW BY CELL DIVISION.

0204065003     KNOW THAT THE STRUCTURE OF CELLS VARIES ACCORDING TO THE FUNCTIONS

0204065004     DESCRIBE AS MANY DIFFERENCES AS YOU CAN WHEN OBSERVING   PLANT AND

0204065005     IDENTIFY FROM LIST WHICH NAMES CELL STRUCTURES, OR FROM  PICTURES
               TRAITS WHICH ARE PRESENT ONLY IN PLANT CELLS, ONLY IN    ANIMAL CE

0204065006     GIVEN SIMPLE SLIDE AND MICROSCOPE, CLASSIFY OBJECTS ON   SLIDE AS
               BUBBLES, DIRT, CRYSTALS).

0204065007     ESTABLISH A RELATIONSHIP BETWEEN THE MOLD ON BREAD TO    THE ACTIO
               CELLS.


0204075        CLASSIFY (ANIMALS)

0204075001     ON BASIS OF DISTINCT CHARACTERISTICS, CLASSIFY COMMON    ANIMALS A
               AMPHIBIANS, REPTILES, BIRDS, OR MAMMALS.

0204075002     GIVEN A LIST OF 12 WORDS IN WHICH AR MAMMALS AND BIRDS,  PUT ALL W
               TO EACH GROUP.

0204075003     KNOW THAT EVERY SPECIES OF ANIMAL HAS A LIFE CYCLE IN    WHICH THE
               CHANGES IN STRUCTURE FROM EGG TO ADULT) IS REPEATED OVER AND OVER
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RE AND BEHAVIOR (MIGRATION) THE DUCK IS ADAPTED TO ITS ENVIRONMENT.

RAWING, ETC.) HOW A DUCK IS ADAPTED FOR FLIGHT, HATCHING YOUNG FROM EGGS, AND HOW
E LIFE OF THE EMBRYO.

ARE MADE OF CELLS. THEY HAVE A COMPLEX STRUCTURE.

ROW BY CELL DIVISION.

OF CELLS VARIES ACCORDING TO THE FUNCTIONS OF THE CELLS IN THE ORGANISM.

NCES AS YOU CAN WHEN OBSERVING PLANT AND ANIMAL CELLS UNDER MICROSCOPE.

NAMES CELL STRUCTURES, OR FROM PICTURES OR SLIDES OF LIVING TISSUE, THOSE CELLULAR
ONLY IN PLANT CELLS, ONLY IN ANIMAL CELLS, OR IN BOTH.

ICROSCOPE, CLASSIFY OBJECTS ON SLIDE AS CELLS OR OBJECTS WHICH ARE NOT CELLS (E.G., AI
.

BETWEEN THE MOLD ON BREAD TO THE ACTION OF BACTERIA OF DECAY ON DEAD PLANT AND ANIMAL

ARACTERISTICS, CLASSIFY COMMON ANIMALS AS BEING EITHER WORMS, INSECTS, SHELLFISH, FISH,
IRDS, OR MAMMALS.

S IN WHICH AR MAMMALS AND BIRDS, PUT ALL WORDS IN CORRECT GROUP AND ADD AT LEAST 2 WORDS

OF ANIMAL HAS A LIFE CYCLE IN WHICH THE SAME PATTERN OF DEVELOPMENT (SUCCESSIVE
OM EGG TO ADULT) IS REPEATED OVER AND OVER AGAIN.

0204075004	CHOOSE AN ANIMAL, IDENTIFY ITS STRUCTURE AND BEHAVIOR (INBORN A
0204090	CLASSIFY (MATTER)
0204090001	KNOW THAT MATTER IS OF MANY KINDS.
0204090002	RECOGNIZE A SOLID, A LIQUID, AND A GAS ON THE BASIS OF SHAPE.
0204090003	DESCRIBE HOW IT CAN BE SHOWN THAT MATTER HAS WEIGHT.
0204090004	DESCRIBE HOW IT CAN BE SHOWN THAT MATTER TAKES UP SPACE.
0204090005	KNOW THAT MATTER IS NOT ALL MOLECULAR.
0204090006	KNOW THAT A SUBSTANCE MAY BE RECOGNIZED BY ITS PROPERTIES
0204090007	KNOW THAT SUBSTANCES HAVE PROPERTIES THAT DISTINGUISH THEM FROM
0204095	CLASSIFY (PLANTS)
0204095001	GIVEN DESCRIPTION OR EXAMPLE OF A PLANT, CLASSIFY IT INTO ONE O FERNS OR SEED PLANT (INCLUDING PLANTS WITH CONES AND PLANTS WIT
0204105	CLASSIFY (PLANT AND ANIMAL CELLS)
0204105001	DESCRIBE AS MANY DIFFERENCES AS YOU CAN WHEN OBSERVING PLANT AND

TURE AND BEHAVIOR (INBORN AND LEARNED), AND GIVE ONE EXAMPLE OF EACH.

AS ON THE BASIS OF SHAPE.

TTER HAS WEIGHT.

TTER TAKES UP SPACE.

R.

ZED BY ITS PROPERTIES.

THAT DISTINGUISH THEM FROM ONE ANOTHER.

ANT, CLASSIFY IT INTO ONE OF THE MAJOR GROUPS: SIMPLE PLANTS, MOSSES,
S WITH CONES AND PLANTS WITH FLOWERS).

CAN WHEN OBSERVING PLANT AND ANIMAL CELLS UNDER THE MICROSCOPE.

0204115	ECOLOGY
0204115001	KNOW THAT ECOLOGY IS THE STUDY OF THE RELATIONSHIP OF LIVING ENVIRONMENT.
0204115002	DO INDEPENDENT RESEARCH TO FIND OUT WHAT ECOLOGY IS AND HOW IT
0204115003	USING THE OVERHEAD PROJECTOR, SHOW THREE AREAS IN WHICH NATURA
0204115004	TELL, OR DEVISE AN INVESTIGATION TO SHOW HOW RETURNING THE MA
0204115005	PROVIDED WITH DATE CONCERNING WILDLIFE CONSERVATION IN THE EV SUCH A PROGRAM.
0204125	ENERGY TRANSFORMATION
0204125001	KNOW THAT WHEN ENERGY CHANGES FROM ONE FORM TO ANOTHER, THE TO
0204130	ENERGY TRANSFORMATION (AIR)
0204130001	KNOW THAT HEATED AIR EXPANDS, COOLED AIR CONTRACTS.
0204130002	DEMONSTRATE THAT WARMED AIR EXPANDS, BY CAUSING A DEFLAT OVER A BOTTLE OPENING AND THE BOTTLE IS HEATED.
0204130003	DEMONSTRATE HOW TO COLLECT CLEAN AIR, BY BUBBLING AIR THROUG INVERTED BOTTLE.
0204140	ENERGY TRANSFORMATION (BURNING CANDLE)
0204140001	STATE THAT ENERGY CAN BE CHANGED FROM ONE FORM TO ANOTHE

DY OF THE RELATIONSHIP OF LIVING THINGS TO EACH OTHER AND TO THEIR NONLIVING

IND OUT WHAT ECOLOGY IS AND HOW IT AFFECTS US.

, SHOW THREE AREAS IN WHICH NATURAL RESOURCES HAVE BEEN WASTED.

TION TO SHOW HOW RETURNING THE MATTER TO THE ENVIRONMENT IS HELPFUL.

G WILDLIFE CONSERVATION IN THE EVERGLADES, ORALLY DESCRIBE A PLAN TO ACCOMPLISH

S FROM ONE FORM TO ANOTHER, THE TOTAL AMOUNT OF ENERGY REMAINS UNCHANGED.

S, COOLED AIR CONTRACTS.

EXPANDS, BY CAUSING A DEFLATED BALLOON TO INFLATE WHEN THE BALLOON IS PLACED
HE BOTTLE IS HEATED.

CLEAN AIR, BY BUBBLING AIR THROUGH A PAN OF WATER, DISPLACING WATER FROM AN

ING CANDLE)

ANGED FROM ONE FORM TO ANOTHER (BY DEMONSTRATION OF BURNING CANDLE).

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0204140002      WHEN PROVIDED WITH APPROPRIATE MATERIALS TO START A     FIRE, OB
                LEAST ONE PARAGRAPH BASED ON OBSERVATIONS.

0204140003      DESCRIBE THAT A CHEMICAL CHANGE IS OCCURRING AS A CANDLE BURNS, T
                GIVEN OFF.

0204140004      DEMONSTRATE THAT A CANDLE BURNS AT CONSTANT RATE, BY    PLACING
                TIME IT TAKES FOR THE PARAFFIN TO DISAPPEAR.

0204140005      DEMONSTRATE THAT CARBON DIOXIDE FORMS WHEN A CANDLE     BURNS, B
                CONTAIN CLEAR LIMEWATER, CAUSING THE LIMEWATER TO TURN  CLOUDY W




0204145         ENERGY TRANSFORMATION (CARBON DIOXIDE)

0204145001      UNDERSTAND THAT EXHALED AIR CONTAINS CARBON DIOXIDE.

0204145002      SHOW THAT OXYGEN AND CARBON DIOXIDE HAVE DIFFERENT      PROPERTI

0204145003      DESCRIBE THAT CARBON DIOXIDE CAUSES LIMEWATER TO TURN TO A MILKY

0204145004      DISTINGUISH BETWEEN AIR FROM HIS LUNGS AND AIR FROM THE ATMOSPHE
                COMPARING RESULTS WITH A SIMILAR TEST WHERE AIR FROM A  BICYCLE

0204145005      DEMONSTRATE AND ANSWER QUESTIONS ABOUT THE PROPERTIES   OF CARBO
                AND ONE BLOWN UP BY A PERSON.

0204145006      DEMONSTRATE THAT THE AIR FROM LUNGS CONTAINS CARBON     DIOXIDE,
                INTO LIMEWATER.

0204145007      KNOW THAT OXYGEN GIVES ENERGY WHEN IT COMBINES          CHEMICAL


0204150         ENERGY TRANSFORMATION (CHEMICAL)

0204150001      KNOW THAT IN CHEMICAL CHANGE, ATOMS REACT TO PRODUCE A  CHANGE I
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E IALS TO START A FIRE, OBSERVE THE COMBINED FIRE AND CANDLE AND WRITE AT
TIONS.

E CCURRING AS A CANDLE BURNS, THE PARAFFIN DISAPPEARS, AND LIGHT AND HEAT ARE

A ONSTANT RATE, BY PLACING HALF-INCH MARKS ON THE CANDLE AND MEASURING THE
SAPPEAR.

S WHEN A CANDLE BURNS, BY ARRANGING A CANDLE INSIDE JOINED JARS WHICH
E LIMEWATER TO TURN CLOUDY WHEN THE LIGHTED CANDLE IS PUT OUT.

E)

CARBON DIOXIDE.

S HAVE DIFFERENT PROPERTIES USING LIMEWATER AS A REAGENT.

O LIMEWATER TO TURN TO A MILKY COLOR.

E GS AND AIR FROM THE ATMOSPHERE, USING EXHALATION THROUGH LIMEWATER AND
U T WHERE AIR FROM A BICYCLE PUMP IS USED TO FILL A BALLOON.

UT THE PROPERTIES OF CARBON DIOXIDE BY USING ONE BALLOON FILLED BY A PUMP

3 CONTAINS CARBON DIOXIDE, BY BLOWING INTO A BALLOON AND BUBBLING THE AIR

Y T COMBINES CHEMICALLY WITH CARBON.

EACT TO PRODUCE A CHANGE IN THE MOLECULES.

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0204160        ENERGY TRANSFORMATION (COMPOUNDS)

0204160001     KNOW THAT A COMPOUND IS MADE UP OF MORE THAN ONE        ELEME

0204160002     COMBINE TWO COMPOUNDS WITH DIFFERENT PROPERTIES IN ORDER TO CR



0204170        ENERGY TRANSFORMATION (CONDENSATION)

0204170001     KNOW THAT WATER VAPOR IN THE AIR CAN BE CHANGED TO      WATER

0204170002     KNOW THAT TO CONDENSE WATER VAPOR, HEAT ENERGY MUST BE   TAKEN

0204170003     KNOW THAT WATER VAPOR CONDENSES WHEN COOLED.

0204170004     DEMONSTRATE THAT WATER IS IN THE AIR, BY CAUSING        MOIST
               WITH ICE WATER.

0204170005     DEMONSTRATE THAT WATER VAPOR IS FORMED INSIDE AND AT THE TOP O
               AIR, WHEN THE GLASS CHAMBER IS PLACED IN A WARM         LOCAT



0204180        ENERGY TRANSFORMATION (DECOMPOSITION)

0204180001     KNOW THAT THROUGH THE ACTION OF BACTERIA AND OTHER      ORGAN
               TO THE ENVIRONMENT.

0204180002     EXPLAIN HOW BACTERIA AND FUNGI BREAK DOWN ONCE LIVING   THING



0204190        ENERGY TRANSFORMATION (ELEMENTS)

0204190001     KNOW THAT AN ELEMENT IS MADE UP OF ONE KIND OF ATOM.
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OF MORE THAN ONE ELEMENT.

RENT PROPERTIES IN ORDER TO CREATE A THIRD COMPOUND WITH NEW PROPERTIES.

ION)

CAN BE CHANGED TO WATER.

R, HEAT ENERGY MUST BE TAKEN AWAY.

WHEN COOLED.

AIR, BY CAUSING MOISTURE TO COLLECT ON THE SURFACE OF A SHINY CAN FILLE

FORMED INSIDE AND AT THE TOP OF A SEALED GLASS CHAMBER THAT CONTAINS WATER AND
LACED IN A WARM LOCATION.

TION)

BACTERIA AND OTHER ORGANISMS, THE MATTER OF ONCE-LIVING THINGS IS RETURNED

REAK DOWN ONCE LIVING THINGS AND RETURN THEM TO THE ENVIRONMENT.

OF ONE KIND OF ATOM.

0204190002	KNOW THAT THE ATOMS IN AN ELEMENT ARE ALIKE. THE ATOMS IN A CO
0204190003	STATE THE DIFFERENCES IN ELEMENTS AND COMPOUNDS.
0204195	ENERGY TRANSFORMATION (EVAPORATION)
0204195001	KNOW THAT WATER EVAPORATES TO BECOME A GAS, WATER VAPOR.
0204195002	UNDERSTAND HOW EVAPORATION IS EXPLAINED BY THE MOLECULAR THEORY.
0204195003	DESCRIBE HOW A DROP OF WATER EVAPORATES AS IT CHANGES FROM LI
0204210	ENERGY TRANSFORMATION (HEAT)
0204210001	DESCRIBE THE STATE TO WHICH MATTER WILL CHANGE IF HEAT ENERGY I CONTRACT.
0204210002	GIVEN TWO STATES OF MATTER, TELL IF HEAT MUST BE ADDED OR TAKEN AND GIVE THE NAME OF THE PROCESS.
0204210003	GIVEN DESCRIPTION OR ILLUSTRATION OF A CHANGE OF STATE OF LIQUI FREEZING POINT OR IF IT WAS AT BOILING POINT.
0204225	ENERGY TRANSFORMATION (LIGHT AND SOUND)
0204225001	STATE THE DIFFERENCES IN LIGHT AND SOUND AS FORMS OF ENERGY.

LEMENT ARE ALIKE. THE ATOMS IN A COMPOUND ARE DIFFERENT.

EMENTS AND COMPOUNDS.

ORATION)

TO BECOME A GAS, WATER VAPOR.

IS EXPLAINED BY THE MOLECULAR THEORY.

R EVAPORATES AS IT CHANGES FROM LIQUID TO WATER VAPOR, DUE TO A TEMPERATURE CHANGE

)

MATTER WILL CHANGE IF HEAT ENERGY IS ADDED OR TAKEN AWAY, USING THE TERMS EXPAND OR

TELL IF HEAT MUST BE ADDED OR TAKEN AWAY TO GO FROM THE FIRST TO THE SECOND STATE
OCESS.

RATION OF A CHANGE OF STATE OF LIQUID, EXPLAIN IF TEMPERATURE OF SUBSTANCE WAS AT
AT BOILING POINT.

T AND SOUND)

GHT AND SOUND AS FORMS OF ENERGY.

0204245	ENERGY TRANSFORMATION (MOLECULAR)
0204245001	KNOW THAT MATTER IS MOLECULAR IN NATURE.
0204245002	KNOW THAT THE SPACE BETWEEN MOLECULES INCREASES AS A SUBSTANCE
0204245003	KNOW THAT MOLECULES CAN BE MOVED AROUND TO FORM COMPOUNDS
0204245004	KNOW THAT ENERGY IS RELEASED DURING A MOLECULAR CHANGE.
0204245005	KNOW THAT A LOSS OR GAIN OR ENERGY AFFECTS MOLECULAR MOTION.
0204245006	KNOW THAT A LOSS OR GAIN IN ENERGY AFFECTS MOLECULAR MOTION.
0204245007	KNOW THAT MOLECULES OF SUBSTANCES INTERACT.
0204245008	KNOW THAT AIR AND WATER CANNOT OCCUPY THE SAME SPACE AT THE SAME
0204245009	THROUGH THE USE OF MODELS, DISCOVER THAT DIFFERENT COMPOUNDS MOLECULES.
0204255	ENERGY TRANSFORMATION (OXIDATION)
0204255001	NAME THE BLACK SUBSTANCE AS CARBON AND THE LIQUID AS WATER IN
0204255002	DEMONSTRATE THAT A BLACK SUBSTANCE AND A LIQUID ARE FORMED WH
0204255003	KNOW THAT IRON AND OXYGEN COMBINE TO FORM IRON OXIDE, OR RUST.
0204255004	KNOW THAT OXYGEN RUSTS IRON MORE QUICKLY THAN AIR DOES.

ULAR)

R IN NATURE.

MOLECULES INCREASES AS A SUBSTANCE EXPANDS.

OVED AROUND TO FORM COMPOUNDS OR TO OBTAIN ELEMENTS.

DURING A MOLECULAR CHANGE.

ENERGY AFFECTS MOLECULAR MOTION.

ENERGY AFFECTS MOLECULAR MOTION.

ANCES INTERACT.

OT OCCUPY THE SAME SPACE AT THE SAME TIME.

ISCOVER THAT DIFFERENT COMPOUNDS HAVE DIFFERENT NUMBERS OF ATOMS IN THEIR

TION)

CARBON AND THE LIQUID AS WATER IN THE HEATING OF SUGAR OVER A FLAME.

STANCE AND A LIQUID ARE FORMED WHEN SUGAR IN A TEST TUBE IS HEATED OVER A FLAME

MBINE TO FORM IRON OXIDE, OR RUST.

MORE QUICKLY THAN AIR DOES.

0204255005	KNOW THAT SOME MOLECULES OF AIR SEEM TO DISAPPEAR WHEN IRON RUSTS.
0204255006	DEMONSTRATE AS IRON RUSTS, THE AIR IN A CLOSED CONTAINER IS DIMINISHED
0204255007	DEMONSTRATE THAT, INSIDE A TEST TUBE CONTAINING WET STEEL WOOL IN AS THE STEEL WOOL RUSTS.
0204260	ENERGY TRANSFORMATION (OXYGEN)
0204260001	KNOW THAT OXYGEN AND CARBON DIOXIDE FORM A CYCLE.
0204260002	STATE THE FIVE IMPORTANT FACTS ABOUT THE OXYGEN CYCLE.
0204260003	NAME BUBBLES OF GAS, FROM AQUARIUM PLANTS, AS OXYGEN.
0204260004	DESCRIBE THAT BUBBLES RISE FROM AQUARIUM PLANTS GROWING IN SUNLIGHT, LIGHT IS CUT OFF.
0204260005	DEMONSTRATE THE COLLECTION OF OXYGEN BY ADDING HYDROGEN PEROXIDE TO A TEST TUBE IN WATER, CAUSING GAS TO FORM IN THE TEST TUBE, DISPLAC
0204285	ENERGY TRANSFORMATION (WATER)
0204285001	KNOW THAT FREEZING WATER EXPANDS.
0204285002	KNOW THAT THE EXPANSION OF WATER AS IT TURNS TO ICE HAS A GREAT FORCE
0204285003	DEMONSTRATE THAT AS WATER FREEZES IT EXPANDS AND TAKES UP MORE SPACE CAUSING ICE TO RISE ABOVE TOP OF CAN.
0204285004	KNOW THAT ICE OCCUPIES A GREATER VOLUME THAN WATER.

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EM TO DISAPPEAR WHEN   IRON RUSTS.

 IN A CLOSED CONTAINER IS DIMINISHED.

BE CONTAINING WET      STEEL WOOL INVERTED IN WATER, THE WATER LINE WILL RISE




E FORM A CYCLE.

UT THE OXYGEN CYCLE.

 PLANTS, AS OXYGEN.

UARIUM PLANTS GROWING  IN SUNLIGHT, AND THAT THE BUBBLES DECREASE WHEN THE

EN BY ADDING HYDROGEN  PEROXIDE TO A TEST TUBE CONTAINING YEAST, INVERTING THE
 FORM IN THE TEST      TUBE, DISPLACING THE WATER.




S IT TURNS TO ICE HAS  A GREAT FORCE.

IT EXPANDS AND TAKES   UP MORE SPACE BY FREEZING WATER IN OPEN CAN.  THUS
AN.

VOLUME THAN WATER.
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0204285005      KNOW THAT WARM WATER RISES IN COLD WATER   COLD WATER;   SINKS IN

0204285006      KNOW THAT WARM WATER RISES BECAUSE IT EXPANDS...

0204285007      DEMONSTRATE THAT WARM WATER RISES AND COLD WATER SINKS.

0204285008      DEMONSTRATE THAT WARM WATER RISES WHEN MIXED WITH COLD   WATER, BY
                COLD WATER, CAUSING THE COLORED WATER TO REMAIN IN THE   TOP HALF

0204285009      DEMONSTRATE THAT COLD WATER SINKS WHEN MIXED WITH WARM   WATER, BY
                WARM WATER, CAUSING THE COLORED WATER TO SETTLE IN THE   BOTTOM HA

0204285010      DEMONSTRATE THAT A DROP OF WATER DISAPPEARS AND CAN BE   FORMED AG
                CHAMBER AND ALTERNATELY PLACING THE CONTAINER IN A       WARM, THE

0204285011      KNOW THAT WATER BECOMES AN INVISIBLE GAS WHEN SUPER      HEATED AN



0204290         EROSION

0204290001      DEFINE EROSION.  NAME AND DESCRIBE THREE WAYS IT CAN     OCCUR.

0204290002      DEMONSTRATE HOW WATER MOVES LAND BY SPRINKLING WATER ON  SAND HILL

0204290003      DEMONSTRATE THAT MOVING WATER CAN CARRY SAND PARTICLES   BY STIRRIN
                CAUSING SAND PARTICLES TO RISE INTO SWIRLING WATER.

0204290004      DEMONSTRATE THAT FASTER MOVING WATER CARRIES MORE SAND   PARTICLES
                WHICH WATER IS STIRRED.

0204290005      KNOW HOW PLANTS REDUCE EROSION.
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S IN COLD WATER COLD WATER; SINKS IN WARM WATER.

S BECAUSE IT EXPANDS...

ER RISES AND COLD WATER SINKS.

ER RISES WHEN MIXED WITH COLD WATER, BY POURING COLORED WARM WATER INTO A GLASS OF
OLORED WATER TO REMAIN IN THE TOP HALF OF THE JAR.

ER SINKS WHEN MIXED WITH WARM WATER, BY POURING COLORED COLD WATER INTO A GLASS OF
OLORED WATER TO SETTLE IN THE BOTTOM HALF OF THE JAR.

F WATER DISAPPEARS AND CAN BE FORMED AGAIN, BY ENCLOSING THE DROP IN A CLOSED GLASS
LACING THE CONTAINER IN A WARM, THEN COOL PLACE.

N INVISIBLE GAS WHEN SUPER HEATED AND RETURNS TO A LIQUID WHEN COOLED.

DESCRIBE THREE WAYS IT CAN OCCUR.

ES LAND BY SPRINKLING WATER ON SAND HILL CAUSING SAND TO FLOW DOWN GROOVE AS IN RIVER.

ATER CAN CARRY SAND PARTICLES BY STIRRING WATER IN JAR CONTAINING SAND AT BOTTOM
RISE INTO SWIRLING WATER.

OVING WATER CARRIES MORE SAND PARTICLES THAN SLOWER MOVING WATER BY VARYING SPEED WIT

OSION.

0204295	FISH
0204295001	INVESTIGATE THE STRUCTURES THAT ADAPT A FISH FOR WATER LIVING.
0204295002	DESCRIBE HOW LIVING FISH IS FITTED FOR MOVING THROUGH WATER, CHARACTERISTICS AND ITS MOTIONS.
0204295003	DRAW AND LABEL THE FOOD CHAIN OF A SALMON.
0204295004	UNDERSTAND THE SALMON LIFE CYCLE IN WHICH THEY TRAVEL GREAT D SPAWNING GROUNDS IN FRESH WATER.
0204295005	KNOW THAT THE LIFE CYCLE OF A SALMON IS REPEATED AS THE EGGS HA TO DEVELOP INTO ADULT SALMON.
0204295006	KNOW HOW THE SALMON'S LIFE CYCLE IS REPEATED OVER AND OVER.
0204295007	WRITE OR TELL THE STORY OF A SALMON'S LIFE CYCLE USING THE COR
0204300	FORCE AND MOTION
0204300001	DEMONSTRATE YOUR UNDERSTANDING OF THE TERM FORCE AND APPLY T A PULL IS EXERTED ON AN OBJECT.
0204300002	DESIGN A SIMPLE EXPERIMENT WHICH DEMONSTRATES THE APPLICA INERTIA).
0204315	GEOLOGY
0204315001	KNOW THAT THE ENVIRONMENT IS IN CONSTANT CHANGE.
0204315002	KNOW THAT THE EARTH'S SURFACE IS ALWAYS CHANGING.
0204315003	UNDERSTAND HOW THE ENERGY OF MOVING WATER CHANGES THE EARTH'S

ADAPT A FISH FOR WATER LIVING.

TED FOR MOVING THROUGH WATER, BY OBSERVING AND RECORDING THE FISH'S
S.

F A SALMON.

E IN WHICH THEY TRAVEL GREAT DISTANCES FROM FEEDING GROUNDS IN SALT WATER TO
R.

ALMON IS REPEATED AS THE EGGS HATCH AND THE SALMON YOUNG RETURNED TO SALT WATER

E IS REPEATED OVER AND OVER.

LMON'S LIFE CYCLE USING THE CORRECT NAMES FOR EACH PHASE.

OF THE TERM FORCE AND APPLY THE TERM IN DESCRIBING SITUATIONS WHERE A PUSH OR

H DEMONSTRATES THE APPLICATION OF NEWTON'S FIRST LAW OF MOTION (LAW OF

CONSTANT CHANGE.

S ALWAYS CHANGING.

VING WATER CHANGES THE EARTH'S SURFACE.

0204315004	KNOW HOW LAND WORN DOWN IN ONE PLACE IS BUILT UP IN ANOTHER.
0204315005	KNOW HOW PRESSURES ON AND IN THE EARTH CAUSE MOUNTAINS TO RISE.
0204315006	KNOW HOW THE PRESSURE OF SEDIMENT MAY CAUSE MOUNTAINS TO RISE.
0204315007	EXPLAIN HOW THE WEIGHT OF SEDIMENT CAN HELP TO RAISE MOUNTAINS.
0204315008	KNOW THAT THE PRESSURE ON THE MOLTEN ROCK WITHIN THE EARTH CAUS
0204315009	KNOW HOW UNEQUAL EXPANSION AND CONTRACTION CAN BREAK ROCKS.
0204315010	USING MARBLES SHOW HOW EXPANSION AND CONTRACTION WITH HEAT AND C
0204315011	SHOW HOW FREEZING WATER EXPANDS WITH ENOUGH FORCE TO BREAK ROCK
0204315012	KNOW THAT THE EXPANSION AND THE CONTRACTION OF ROCK, AND AND THE FO
0204315013	KNOW HOW THE EXPANSION OF FREEZING WATER BREAKS DOWN ROCKS.
0204315014	GIVEN MODEL OR DIAGRAM OF THE EARTH, NAME EACH OF THE THREE LAYE GENERAL PROPERTIES OF EACH.
0204315015	KNOW WHY THE EARTH'S ROCKS DEEP BELOW THE CRUST CAN FLOW UNDER
0204315016	GIVEN A DESCRIPTION OF HOW A ROCK WAS FORMED, TELL WHETHER TH METAMORPHIC.

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NE PLACE IS BUILT UP IN      ANOTHER.

THE EARTH CAUSE MOUNTAINS    TO RISE.

IMENT MAY CAUSE MOUNTAINS TO RISE.

DIMENT CAN HELP TO RAISE     MOUNTAINS.

E MOLTEN ROCK WITHIN THE     EARTH CAUSES THE CRUST TO RISE FORMING MOUNTAINS.

ND CONTRACTION CAN BREAK     ROCKS.

SION AND CONTRACTION WITH    HEAT AND COLD CAN BREAK DOWN ROCK.

NDS WITH ENOUGH FORCE TO     BREAK ROCK, USING CAN, WATER AND BRICK.

HE CONTRACTION OF ROCK, AND AND THE FORCE OF GROWING PLANTS, HELP BREAK DOWN ROCK.

EEZING WATER BREAKS DOWN     ROCKS.

 EARTH, NAME EACH OF THE     THREE LAYERS (CRUST, MANTLE, AND CORE) AND DESCRIBE

EEP BELOW THE CRUST CAN      FLOW UNDER PRESSURE.

ROCK WAS FORMED, TELL        WHETHER THE ROCK IS IGNEOUS, SEDIMENTARY, OR
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0204325	HUMAN BODY (CIRCULATORY)
0204325001	USING THE TERMS ARTERIES, VEINS, CAPILLARIES, AND HEART, DESCRIBE H
0204335	HUMAN BODY (DIET)
0204335001	TELL WHY WE NEED NUTRIENTS AND HOW THEY DIFFER FROM WASTES.
0204335002	CONDUCT TESTS TO FIND OUT WHETHER A FOOD IS MAINLY CARBOHYDRA
0204335003	CLASSIFY A FAMILIAR FOOD AS BELONGING TO ONE OF THE FOLLOWING VEGETABLE-FRUIT.
0204335004	FROM LIST OF FOODS, IDENTIFY BEST SOURCES OF PROTEIN, CARBOHYDRA
0204335005	EXPLAIN WHETHER FOOD EATEN IN ONE DAY BY A CHILD IS A BALANCED D
0204335006	PLAN A WELL-BALANCED DIET FOR A DAY.
0204340	HUMAN BODY (DIGESTIVE)
0204340001	ON DRAWING OF DIGESTIVE SYSTEM, IDENTIFY MOUTH, TEETH, TONGUE, FO
0204355	HUMAN BODY (EXERCISE)
0204355001	SUGGEST SCHEDULE OF EXERCISES FOR ADULT TO DO TO REMAIN HEALTHY.

EINS, CAPILLARIES, AND HEART, DESCRIBE HOW THE BLOOD TRAVELS IN THE BODY.

AND HOW THEY DIFFER FROM WASTES.

HETHER A FOOD IS MAINLY CARBOHYDRATE, FAT, OR PROTEIN.

BELONGING TO ONE OF THE FOLLOWING FOOD GROUPS: MILK, MEAT, BREAD-CEREAL, OR

Y BEST SOURCES OF PROTEIN, CARBOHYDRATE, AND FAT.

IN ONE DAY BY A CHILD IS A BALANCED DIET. IF NOT, TELL WHAT IS MISSING.

DR A DAY.

TEM, IDENTIFY MOUTH, TEETH, TONGUE, FOOD PIPE, STOMACH, AND INTESTINE.

ES FOR ADULT TO DO TO REMAIN HEALTHY.

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0204385         HUMAN BODY (MUSCULAR)

0204385001      EXPLAIN HOW OPPOSING MUSCLES IN MAN (INCLUDING THOSE OF   ARM AND LE


0204400         HUMAN BODY (POSTURE)

0204400001      NAME TWO HEALTH REASONS FOR GOOD POSTURE AND TELL IF A    PERSON IS
                AND SITTING.


0204410         HUMAN BODY (RESPIRATORY)

0204410001      DESCRIBE NORMAL FLOW OF AIR IN AND OUT OF HUMAN           RESPIRATOR
                PASSAGE, AND WINDPIPE.


0204415         HUMAN BODY (SKELETAL)

0204415001      IN DRAWING, IDENTIFY SKULL, BACKBONE, RIBS, SHOULDER      BLADE, UPP
                THIGHBONE, KNEECAP, SHINBONE, HEEL BONE, TOE AND FINGER   BONES.


0204420         HUMAN BODY (SKIN, HAIR, TEETH, NAILS)

0204420001      DESCRIBE HOW TO TAKE PROPER CARE OF SKIN, TEETH, HAIR,    AND NAILS.
                GOOD HEALTH.


0204425         HUMAN BODY (SYSTEMS)

0204425001      IN A DRAWING OF HUMAN BODY, FIND AND NAME FIVE SYSTEMS    OF THE BOD

0204425002      MATCH HUMAN BODY SYSTEMS (SKELETAL, MUSCULAR, DIGESTIVE, CIRCULATOR
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SCLES IN MAN (INCLUDING THOSE OF ARM AND LEG) WORK TO CAUSE MOVEMENT OF BODY PARTS.

FOR GOOD POSTURE AND TELL IF A PERSON IS SHOWING PROPER POSTURE IN STANDING, WALKING,

)

AIR IN AND OUT OF HUMAN RESPIRATORY SYSTEM, USING THE TERMS LUNGS, NOSE, NASAL

ULL, BACKBONE, RIBS, SHOULDER BLADE, UPPER ARM BONE, LOWER ARM BONES, HIPBONE,
NBONE, HEEL BONE, TOE AND FINGER BONES.

TEETH, NAILS)

OPER CARE OF SKIN, TEETH, HAIR, AND NAILS. NAME TWO REASONS WHY THIS IS IMPORTANT FOR

ODY, FIND AND NAME FIVE SYSTEMS OF THE BODY.

S (SKELETAL, MUSCULAR, DIGESTIVE, CIRCULATORY, AND RESPIRATORY) TO THEIR MAJOR FUNCTIONS.

0204445	INSECTS
0204445001	RECOGNIZE THE BODY PARTS OF AN INSECT YOU CHOOSE TO STUDY.
0204450	INTERDEPENDENCE
0204450001	KNOW HOW LIVING THINGS DEPEND ON OTHER LIVING THINGS FOR THEI GREEN PLANTS.
0204450002	KNOW THE INHERITED CHARACTERISTICS OF A LIVING THING CAN DEVE GROWING PLANT OR ANIMAL CAN INTERCHANGE MATTER AND ENERGY W
0204450003	INFER OR DEMONSTRATE WAYS IN WHICH PLANTS AND ANIMALS MAY BE I GREEN PLANTS OR THEIR PRODUCTS FOR FOOD.
0204455	LIGHT
0204455001	KNOW THAT LIGHT AND SOUND ARE DIFFERENT FORMS OF ENERGY.
0204455002	DEMONSTRATE HOW WE KNOW THAT LIGHT IS A FORM OF ENERGY.
0204455003	KNOW THAT THE LIGHT ENERGY OF A CANDLE COMES FROM PARAFFIN
0204455004	KNOW THAT LIGHT ENERGY MAY BE RELEASED BY A CHEMICAL CHANGE.
0204455005	KNOW THAT CHEMICAL ENERGY CAN BECOME LIGHT ENERGY.
0204455006	KNOW THAT THE LIGHT ENERGY OF A CANDLE IS PRODUCED BY CHEMICAL
0204455007	KNOW THAT LIGHT TRAVELS THROUGH SPACE.
0204455008	KNOW THAT OBJECTS BECOME VISIBLE AS LIGHT IS REFLECTED FROM THE

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CT YOU CHOOSE TO      STUDY.



HER LIVING THINGS     FOR THEIR FOOD, IN FOOD CHAINS THAT IN THE END DEPEND

OF A LIVING THING     CAN DEVELOP ONLY IN THE KIND OF ENVIRONMENT IN WHICH T
ANGE MATTER AND       ENERGY WITH THE ENVIRONMENT,

PLANTS AND ANIMALS    MAY BE INTERDEPENDENT.  NONGREEN PLANTS ARE DEPENDENT
FOOD.



RENT FORMS OF ENERGY.

IS A FORM OF ENERGY.

DLE COMES FROM        PARAFFIN.

SED BY A CHEMICAL     CHANGE.

E LIGHT ENERGY.

DLE IS PRODUCED BY    CHEMICAL CHANGE.

CE.

 LIGHT IS REFLECTED   FROM THEM TO THE EYE.
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0204455009	KNOW THAT LIGHT MUST REACH THE EYE TO BE SEEN.
0204455010	DEMONSTRATE THAT LIGHT TRAVELS IN A STRAIGHT LINE.
0204455011	OBSERVE THE BEHAVIOR OF LIGHT.
0204455012	KNOW THAT LIGHT ENERGY BEHAVES SOMETIMES AS WAVES, AND SOMETIMES
0204455013	KNOW THAT LIGHT CAN BE POLARIZED BY CERTAIN MATERIALS.
0204455014	KNOW THAT LIGHT MAY BE BENT AS IT PASSES THROUGH CERTAIN MATERIALS
0204455015	DEMONSTRATE THAT LIGHT MAY BE BENT (REFRACTED) AS IT ENTERS OR
0204455016	DEMONSTRATE HOW LIGHT CAN BE ABSORBED AND REFLECTED.
0204455017	DEMONSTRATE THAT LIGHT BOUNCES, BY USING A LIGHT SOURCE, MIRROR, WH AMOUNTS OF LIGHT TO REFLECT ONTO A DARKENED OBJECT.
0204455018	DESIGN EXPERIMENT TO SHOW WHETHER SUBSTANCES OR OBJECTS WITH DIFFE ABSORB MOST OF THE LIGHT WHICH FALLS ON THEM.
0204455019	DESCRIBE THE BEHAVIOR OF LIGHT IN TERMS OF REFLECTION OF BRIGHT
0204455020	DEMONSTRATE THAT LIGHT CAN BE REFLECTED, ABSORBED, DIFFUSED,
0204455021	DEMONSTRATE THAT THE BEHAVIOR OF POLARIZED LIGHT IS EXPLAINED
0204455022	DEMONSTRATE THAT LIGHT PASSES THROUGH ONE PIECE OF POLARIZED WHEN TWO PIECES ARE USED AND ONE IS TURNED.

THE EYE TO BE SEEN.

VELS IN A STRAIGHT LINE.

GHT.

AVES SOMETIMES AS WAVES, AND SOMETIMES AS PARTICLES.

ARIZED BY CERTAIN MATERIALS.

T AS IT PASSES THROUGH CERTAIN MATERIALS.

BE BENT (REFRACTED) AS IT ENTERS OR LEAVES WATER.

BE ABSORBED AND REFLECTED.

NCES, BY USING A LIGHT SOURCE, MIRROR, WHITE PAPER, AND BLACK PAPER, CAUSING VARYING
T ONTO A DARKENED OBJECT.

WHETHER SUBSTANCES OR OBJECTS WITH DIFFERENT SURFACE TEXTURES AND COLORS REFLECT OR
HICH FALLS ON THEM.

IGHT IN TERMS OF REFLECTION OF BRIGHT SURFACES AND ITS ABSORPTION BY DARK SURFACES.

BE REFLECTED, ABSORBED, DIFFUSED, AND BENT.

VIOR OF POLARIZED LIGHT IS EXPLAINED BY A WAVE MODEL.

SSES THROUGH ONE PIECE OF POLARIZED PLASTIC, BUT ALTERNATELY STOPS AND PASSES
ND ONE IS TURNED.

0204455023	CONSTRUCT A DRAWING OF LIGHT RAYS PASSING THROUGH A LENS TO TH TO A POINT.
0204455024	DESCRIBE THE LENS AS FOCUSING THE LIGHT WHEN IT BRINGS LIGHT
0204455025	DEMONSTRATE THAT LIGHT RAYS BEND, BY CAUSING SUNLIGHT TO PASS IT MAY BE HOT ENOUGH TO BURN PAPER.
0204465	MACHINES (COMPLEX)
0204465001	DISASSEMBLE A COMPLEX MACHINE AND IDENTIFY AT LEAST TWO OF TH
0204465002	DISASSEMBLE A COMPLEX MACHINE AND DESCRIBE ORALLY AT LEAST
0204470	MACHINES (SIMPLE)
0204470001	WHEN GIVEN THREE SIMPLE MACHINES, IDENTIFY AND DESCRIBE THE O
0204470002	DESIGN A SIMPLE TOOL WHICH WILL HELP YOU PERFORM A TASK AT SC
0204495	MICRO-ORGANISMS
0204495001	DEMONSTRATE FOOD IS NECESSARY FOR ORGANISMS TO GROW AND MULTI HARD-BOILED EGG YOLK CAUSING JARS WITH FOOD TO BE CLOUDY WITH
0204505	MOLLUSKS
0204505001	DESCRIBE THE HATCHING OF AN EGG, BY OBSERVING AND RECOR SNAILS HATCH.

AYS PASSING THROUGH A LENS TO THE PAPER, ILLUSTRATING THAT THE RAYS BEND AND FOCU

HE LIGHT WHEN IT BRINGS LIGHT TO A POINT.

ND, BY CAUSING SUNLIGHT TO PASS THROUGH A CONVEX LENS AND FORM A SMALL SPOT WHERE
APER.

ND IDENTIFY AT LEAST TWO OF THE SIMPLE MACHINES INVOLVED.

ND DESCRIBE ORALLY AT LEAST TWO OF THE SIMPLE MACHINES INVOLVED.

S, IDENTIFY AND DESCRIBE THE OPERATION OF ONE MACHINE.

HELP YOU PERFORM A TASK AT SCHOOL OR AT HOME.

OR ORGANISMS TO GROW AND MULTIPLY BY CULTURING POND WATER WITH/WITHOUT ADDING
RS WITH FOOD TO BE CLOUDY WITH MICRO-ORGANISMS.

, BY OBSERVING AND RECORDING CHANGES OF SNAIL EGGS EACH DAY UNTIL TINY

0204510	PLANTS (ADAPTATION)
0204510001	KNOW THAT DIFFERENT PLANTS ARE ADAPTED TO DIFFERENT ENV
0204510002	DEMONSTRATE HOW NONGREEN PLANTS ARE ADAPTED FOR OBT
0204530	PLANTS (FERTILIZATION)
0204530001	DESCRIBE ORALLY OR IN WRITING HOW FERTILIZATION TAKES PLA
0204535	PLANTS (FOOD CHAINS)
0204535001	KNOW THAT FOOD CHAINS LEAD ULTIMATELY TO GREEN PLANTS.
0204540	PLANTS (GASES)
0204540001	KNOW THAT GREEN PLANTS GIVE OFF OXYGEN GAS.
0204540002	KNOW THAT THE SUBSTANCES IN THE AIR ARE AFFECTED BY THE ACTI IN LIGHT, AND TAKE IN CARBON DIOXIDE).
0204545	PLANTS (GROWTH)
0204545001	KNOW HOW GROWING PLANTS CAN BREAK ROCKS.
0204545002	KNOW HOW MATTER FROM THE ENVIRONMENT IS USED FOR GROWTH BY C
0204545003	KNOW THAT PLANTS HAVE LIFE CYCLES ADAPTED TO GROWTH IN THEI

ANTS ARE ADAPTED TO DIFFERENT ENVIRONMENTS.

EN PLANTS ARE ADAPTED FOR OBTAINING FOOD AND REPRODUCING.

WRITING HOW FERTILIZATION TAKES PLACE IN THE PLANT.

LEAD ULTIMATELY TO GREEN PLANTS.

S GIVE OFF OXYGEN GAS.

CES IN THE AIR ARE AFFECTED BY THE ACTION OF GREEN PLANTS. (GREEN PLANTS GIVE OFF OXYGE
CARBON DIOXIDE).

TS CAN BREAK ROCKS.

THE ENVIRONMENT IS USED FOR GROWTH BY CELLS OF GREEN PLANTS AND ALL OTHER LIVING THINGS.

LIFE CYCLES ADAPTED TO GROWTH IN THEIR ENVIRONMENTS.

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0204545004     CONSTRUCT A HYPOTHESIS ABOUT WHAT WILL HAPPEN TO THE     HE
               CONTINUES GROWING.

0204545005     DEMONSTRATE THAT THE HEIGHT OF THE MARK WILL NOT CHANGE  AS




0204550        PLANTS (HYBRIDS)

0204550001     DEBATE FOR OR AGAINST SPENDING TIME AND MONEY TO IMPROVE TH
               HYBRIDIZATION.


0204555        PLANTS (MOLDS)

0204555001     WHEN GIVEN THE APPROPRIATE MATERIAL UNDER CONTROLLED     CO
               GROW SUCCESSFULLY UNDER CONTROLLED CONDITIONS.

0204555002     DEMONSTRATE THAT MOLD WILL GROW ON FOOD, PLACING         MO
               PLACE FOR A FEW DAYS.

0204555003     DESCRIBE THE GROWTH OF THE MOLD ON BREAD AS SIMILAR TO   WH
               CELLS TO DISAPPEAR IN TIME.


0204560        PLANTS (NEEDS)

0204560001     KNOW WHY GREEN PLANTS NEED THE RIGHT CONDITIONS FOR      GR

0204560002     WHEN GIVEN FIVE SEEDS, GROW AND OBSERVE ENVIRONMENTAL    CON

0204560003     DEMONSTRATE THAT LIGHT IS NECESSARY FOR GROWTH OF A      GRE
               SUNLIGHT, TO LIGHT FROM AN ELECTRIC LAMP, AND TO         DAR

0204560004     DEMONSTRATE THE CONDITIONS UNDER WHICH GREEN PLANTS      WIL
               CONDITIONS OF SOIL, WATER AND LIGHT AND COMPARING        RES
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G WILL HAPPEN TO THE HEIGHT OF A MARK ON A GROWING PLANT STEM, AS THE PLANT

T HE MARK WILL NOT CHANGE AS THE PLANT CONTINUES GROWING.

TIME AND MONEY TO IMPROVE THE QUANTITY AND THE QUALITY OF CROPS BY SELECTION OR

DU IAL UNDER CONTROLLED CONDUCTION, CONDUCT AN EXPERIMENT TO SHOW MOLDS WILL
ED CONDITIONS.

ST ON FOOD, PLACING MOISTENED STALE BREAD IN A COVERED JAR AND IN A WARM

CH ON BREAD AS SIMILAR TO WHICH FUNGI WOULD GROW ON A DEAD TREE, CAUSING THE TREE

T IGHT CONDITIONS FOR GROWTH.

I OBSERVE ENVIRONMENTAL CONDITIONS OF AT LEAST ONE PLANT.

N ARY FOR GROWTH OF A GREEN PLANT BY SUBJECTING GROWING RADISH SEEDLINGS TO
N RIC LAMP, AND TO DARKNESS, CAUSING MOST TO LEAST GROWTH.

WHICH GREEN PLANTS WILL GROW BEST, BY GROWING SEEDS UNDER EIGHT DIFFERENT
L GHT AND COMPARING RESULTS.

0204560005	KNOW THAT GREEN PLANTS GET THE MATTER FOR GROWTH FROM WATER
0204560006	DESCRIBE THAT LIGHT IS THE SOURCE OF ENERGY FOR GROWING GREEN
0204560007	CONTROL THE ENVIRONMENT OF A GROWING PLANT AND OBSERVE WHAT CHANGED.
0204560008	CONSTRUCT THREE TESTS OF GROWING CONDITIONS.
0204560009	STATE THREE THINGS NECESSARY FOR A GROWING LAND PLANT.
0204560010	KNOW THAT MINERALS IMPORTANT FOR PLANT GROWTH ARE FOUND IN SOI
0204560011	KNOW THAT USING ENERGY FROM LIGHT, GREEN PLANTS MAKE THEIR ENVIRONMENT.
0204560012	DEMONSTRATE THAT THE AMOUNT AND KIND OF LIGHT ENERGY RECEIV FOOD AND GROW.
0204560013	UNDERSTAND HOW THE ACTION OF DECAY RETURNS TO THE SOIL COMPOU
0204560014	DEMONSTRATE WAYS IN WHICH A GREEN PLANT MAY BE DEPENDENT UPON A
0204560015	DEMONSTRATE, IN A MULTIPLE CHOICE TEST, KNOWLEDGE OF PLANTS AND PROTEINS.
0204570	PLANTS (PARTS)
0204570001	MAKE MODELS AND DIAGRAMS OF DIFFERENT PLANT STRUCTURES, BASING ACTUAL PLANTS.
0204570002	AFTER STUDYING DIAGRAMS OF VARIOUS PLANTS, DESCRIBE THE STRUCT

MATTER FOR GROWTH FROM WATER, SOIL, AND AIR.

RCE OF ENERGY FOR GROWING GREEN PLANTS.

ROWING PLANT AND OBSERVE WHAT HAPPENS TO IT WHEN THE ENVIRONMENTAL CONDITIONS AR

NG CONDITIONS.

JR A GROWING LAND PLANT.

JR PLANT GROWTH ARE FOUND IN SOIL WATER.

GHT, GREEN PLANTS MAKE THEIR OWN FOODS FROM INORGANIC SUBSTANCES IN THE

D KIND OF LIGHT ENERGY RECEIVED AFFECTS THE ABILITY OF GREEN PLANTS TO MAKE

ECAY RETURNS TO THE SOIL COMPOUNDS ESSENTIAL TO GROWING PLANTS.

EEN PLANT MAY BE DEPENDENT UPON ANIMALS IN ITS ENVIRONMENT.

ICE TEST, KNOWLEDGE OF PLANTS USING CARBON DIOXIDE AND NITROGEN TO MAKE SUGARS

FFERENT PLANT STRUCTURES, BASING THE MODELS ON OBSERVATIONS THEY HAVE MADE OF

IOUS PLANTS, DESCRIBE THE STRUCTURE AND PARTS OF A PLANT.

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0204575         PLANTS (ROOTS)

0204575001      KNOW THAT PLANTS TAKE WATER THROUTH THEIR ROOTS.


0204575002      DEMONSTRATE THAT AS BEAN SEEDS SPROUT, ROOTS GROW       DOWNWAR
                BETWEEN MOIST BLOTTING PAPER AND SIDES OF GLASS JARS AND BY PLA



0204580         PLANTS (SEEDS)

0204580001      KNOW THAT SEEDS TRANSMIT THE CHARACTERISTICS OF THE     PARENT


0204580002      DEMONSTRATE THAT GROWING PLANTS EXERT FORCE BY SPROUTING SEEDS
                BE PRIED APART.

0204580003      DEMONSTRATE THAT SPROUTING SEEDS EXERT FORCE BY FILLING  SMALL
                PUTTING CONTAINER IN DARK FOR FEW DAYS UNTIL SEEDS      SPROUT



0204605         RELATIVE POSITIONS OF STATIONARY AND MOVING OBJECTS

0204605001      RECOGNIZE WHETHER OR NOT AN OBJECT HAS MOVED RELATIVE TO ANOTHER


0204605002      TELL WHICH WAY AN OBJECT HAS MOVED RELATIVE TO YOU AND   A REFER


0204605003      DESCRIBE THE POSITION OF AN OBJECT RELATIVE TO OTHER    OBJECTS


0204605004      DESCRIBE DIRECTION OF MOVEMENT THAT AN OBJECT HAS AS    SEEN BY
                THAT OBSERVER.  DESCRIPTION COULD INCLUDE A REFERENCE   TO ANOT

0204605005      RECOGNIZE EVIDENCE OF MOTION IN MOVIES OR FLIP-BOOK     PICTURE
                THAT HAVE APPARENT MOTION.  NOTE CHANGES IN POSITION    RELATIV

0204605006      RECOGNIZE WHETHER OR NOT AN OBJECT HAS MOVED RELATIVE TO ANOTHER


0204605007      GIVEN ILLUSTRATIONS OF TWO OBJECTS OR SYSTEMS HAVING    DIFFERE
                SYSTEM IS MOVING FASTER AND WHICH IS MOVING SLOWER.     (RELATI
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TH THEIR ROOTS.

D ROUT, ROOTS GROW DOWNWARD AND LEAVES GROW UPWARD BY SPROUTING SEEDS
I SIDES OF GLASS JARS AND BY PLACING THE JARS IN DIFFERENT POSITIONS.

ACTERISTICS OF THE PARENT PLANTS.

XERT FORCE BY SPROUTING SEEDS BETWEEN TWO GLASS PLATES CAUSING GLASS PIECES TO

EXERT FORCE BY FILLING SMALL BOTTLE WITH DRY BEANS ADDING WATER AND CORK AND
DAYS UNTIL SEEDS SPROUT PUSHING OUT CORK.

AND MOVING OBJECTS

O HAS MOVED RELATIVE TO ANOTHER OBJECT (I.E., A REFERENCE OBJECT).

N RELATIVE TO YOU AND A REFERENCE OBJECT.

RELATIVE TO OTHER OBJECTS.

A T AN OBJECT HAS AS SEEN BY ANOTHER OBSERVER RELATIVE TO THE POSITION OF
F INCLUDE A REFERENCE TO ANOTHER OBJECT OR SYSTEM.

VIES OR FLIP-BOOK PICTURES BY REPORTING DIFFERENTIAL SPEEDS OF OBJECTS
HANGES IN POSITION RELATIVE TO REFERENCE OBJECTS.

O HAS MOVED RELATIVE TO ANOTHER OBJECT (I.E., A REFERENCE OBJECT).

T OR SYSTEMS HAVING DIFFERENT RATES OF MOTION, RECOGNIZE WHICH OBJECT OR
F IS MOVING SLOWER. (RELATIVE MOTION CONCEPT).

0204605008	DESCRIBE THE POSITION OF AN OBJECT AS SEEN BY ANOTHER PERSON.
0204620	SCIENTIFIC METHOD
0204620001	KNOW THAT A HYPOTHESIS MUST BE TESTED WITH EVIDENCE.
0204620002	KNOW THAT A HYPOTHESIS IS BASED ON OBSERVATION AND ANALYSI DESIGN OF THE INVESTIGATION.
0204620003	EXPLAIN THE MEANING OF THE WORD HYPOTHESIS.
0204620004	IN RESPONSE TO A REQUEST TO DO SO, DESCRIBE DESIGNS THAT WOULD B MODEL CAN BE USED TO EXPLAIN A GIVEN PHENOMENON.
0204620005	PROVIDED WITH A SERIES OF EXPERIENCES RELATING TO 'OBSERV EXAMPLES OF THOSE WHICH ARE OBSERVATIONS AND THOSE WHICH A
0204620006	UNDERSTAND THE USEFULNESS OF THE CONCEPT OF CHANGE.
0204620007	AFTER OBSERVING A CHANGE IN AN OBJECT UNDER CONTROLLED PHYSICA FOR THE CHANGE.
0204620008	AFTER OBSERVING A CHANGE IN AN OBJECT UNDER CONTROLLED PHYSICA OBJECT UNDER UNCONTROLLED PHYSICAL CONDITION.
0204620009	DESIGN A SIMPLE EXPERIMENT WHICH DEMONSTRATES APPLICA INERTIA).
0204620010	DESIGN SIMPLE EXPERIMENT, WHICH DEMONSTRATES APPLICATION OF NEWT IT WITH VARIABLES, DRAW CONCLUSIONS AND MAKE GENERAL
0204620011	DESIGN THREE EXPERIMENTS WHICH DEMONSTRATE 1. INCREASE OR DECR FUNCTION OF TIME (V) (TERMINAL).
0204620012	DESIGN EXPERIMENT IN WHICH THESE PRINCIPLES OF LEARNING ARE DEM OBSERVATIONS, USING VARIABLES, KEEPING RECORDS, DRAWING CONCLUS

F AN OBJECT AS SEEN BY ANOTHER PERSON.

MUST BE TESTED WITH EVIDENCE.

IS BASED ON OBSERVATION AND ANALYSIS OF OBJECTS AND EVENTS. IT DETERMINES THE
TION.

THE WORD HYPOTHESIS.

T TO DO SO, DESCRIBE DESIGNS THAT WOULD BE APPROPRIATE TO ILLUSTRATE THAT MORE THAN ONE
PLAIN A GIVEN PHENOMENON.

OF EXPERIENCES RELATING TO 'OBSERVATION' AND 'INFERENCES', SELECT FROM A LIST OF
ARE OBSERVATIONS AND THOSE WHICH ARE INFERENCES WITH 100 PER CENT ACCURACY.

SS OF THE CONCEPT OF CHANGE.

GE IN AN OBJECT UNDER CONTROLLED PHYSICAL CONDITIONS, ANALYZE AND HYPOTHESIZE A REASON

GE IN AN OBJECT UNDER CONTROLLED PHYSICAL CONDITION, HYPOTHESIZE WHAT WILL HAPPEN TO THE
LED PHYSICAL CONDITION.

MENT WHICH DEMONSTRATES APPLICATION OF NEWTON'S FIRST LAW OF MOTION (LAW OF

NT, WHICH DEMONSTRATES APPLICATION OF NEWTON'S BASIC LAWS BY DEVELOPING HYPOTHESIS. TEST
CONCLUSIONS AND MAKE GENERALIZATIONS.

TS WHICH DEMONSTRATE 1. INCREASE OR DECREASE OF SPEED OF AN OBJECT. 2. VELOCITY AS
TERMINAL).

HICH THESE PRINCIPLES OF LEARNING ARE DEMONSTRATED: FORMULATING AN HYPOTHESIS FROM
RIABLES, KEEPING RECORDS, DRAWING CONCLUSIONS AND MAKING GENERALIZATIONS.

0204620013 DESIGN AN EXPERIMENT IN WHICH PRINCIPLES OF LEARNING ARE DEMONSTRATED
FORGETTING, AND RELEARNING.

0204625 SOIL

0204625001 KNOW THAT MOVING WATER CONTAINS MANY PARTICLES OF SOIL.

0204625002 DEMONSTRATE SOME SOIL SUBSTANCES DISSOLVE IN WATER BY MIXING SOIL
EVAPORATING WATER THAT PASSES THROUGH LEAVING RESIDUE OF PARTICLES.

0204625003 KNOW THAT WATER CAN CARRY SOIL OVER LONG DISTANCES.

0204625004 KNOW HOW SLOW-MOVING WATER CAN BUILD UP LAND.

0204625005 KNOW HOW FLOODING WATERS BUILD UP THE SOIL IN VALLEYS.

0204625006 KNOW THAT AS WATER SLOWS DOWN AT THE MOUTH OF A RIVER, IT DEPOSITS

0204625007 KNOW HOW TREES HOLD SOIL WITH THEIR ROOTS AND THEY PROVIDE COVE

0204625008 DEMONSTRATE THAT PLANTS (ROOTS) HOLD SOIL.

0204625009 DEMONSTRATE THAT FALLEN LEAVES HELP TO HOLD SOIL BY PLACING LEAV
OVER LEAVES CAUSING SAND TO BE WASHED AWAY EXCEPT UNDER LEAVES.

0204630 SOLAR SYSTEM

0204630001 GIVEN INFORMATION ON THE PLANETS OF OUR SOLAR SYSTEM ORALLY DESCR

0204630002 GIVEN REFERENCE MATERIALS ABOUT PLANETS, TRANSLATE THE PLANET MEASU
MODELS.

ES OF LEARNING ARE DEMONSTRATED: MEMORIZATION, REACTIVE INHIBITION,

ARTICLES OF SOIL.

LVE IN WATER BY MIXING SOIL AND DISTILLED WATER, FILTERING MIXTURE,
LEAVING RESIDUE OF PARTICLES.

NG DISTANCES.

P LAND.

SOIL IN VALLEYS.

OUTH OF A RIVER, IT DEPOSITS SOIL.

OTS AND THEY PROVIDE COVER.

SOIL.

HOLD SOIL BY PLACING LEAVES ON THIN LAYER OF SAND SPRINKLING WATER
AWAY EXCEPT UNDER LEAVES.

R SOLAR SYSTEM ORALLY DESCRIBE FIVE OF THE NINE PLANETS.

S, TRANSLATE THE PLANET MEASUREMENTS INTO SCALE TERMS AND CONSTRUCT

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0204630003        KNOW THAT SINCE CHANGE IS CONSTANT ALL LIVING THINGS     CHANGE.
                  SPACE ARE CONSTANTLY CHANGING.

0204630004        KNOW THAT AN OBJECT TENDS TO MOVE IN A STRAIGHT LINE.

0204630005        DEMONSTRATE THAT BALL ATTACHED TO SLACK THREAD WILL ROLL IN STRAIG
                  TO TAUT THREAD WILL ROLL IN CURVED LINE WHEN PUSHED.

0204630006        KNOW THAT THE SHAPE OF ORBITS AND THE POSITION OF BODIES IN SPACE

0204630007        UNDERSTAND WHY THE MOTION AND PATH OF CELESTIAL BODIES   ARE PRED

0204630008        KNOW THAT IT OCCURED TO NEWTON THAT THE PULL OF          GRAVITAT

0204630009        KNOW THAT THE MOON IS MOVING IN AN ORBIT AROUND THE      EARTH.

0204630010        KNOW THAT THE PULL OF GRAVITATION BETWEEN EARTH AND MOON SHAPES TH

0204630011        KNOW THAT THE MOON TAKES ABOUT 28 DAYS TO MAKE ONE       COMPLETE

0204630012        KNOW WHY THE CHANGING SHAPE OF THE MOON IS DUE TO ITS    MOTION A

0204630013        DEMONSTRATE HOW MOON'S SHAPE SEEMS TO CHANGE BY HOLDING  BALL AND
                  CAUSING LIGHTED PART OF BALL TO CHANGE SHAPE.

0204630014        GIVEN REMOTE LIGHT SOURCE, DESCRIBE THAT SHAPE OF        LIGHTED
                  THE BALL CIRCLES BUT DOES NOT APPEAR TO CHANGE TO ANY    OTHER OB

0204630015        PREDICT THE OBSERVABLE CHANGES IN THE MOON OVER A PERIOD OF 14 OR
                  ORBIT AND THE MOTION OF THE MOON.

0204630016        SHOW UNDERSTANDING OF THESE WORDS IN A MATCHING TEST:    FULL MOO
                  ELLIPSE.
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ALL LIVING THINGS CHANGE. THEREFORE EARTH AND ALL THE OTHER BODIES IN

IN A STRAIGHT LINE.

SLACK THREAD WILL ROLL IN STRAIGHT LINE WHEN IT IS PUSHED AND THAT ONE ATTACHED
LINE WHEN PUSHED.

THE POSITION OF BODIES IN SPACE ARE PREDICTABLE.

OF CELESTIAL BODIES ARE PREDICTABLE.

T THE PULL OF GRAVITATION EXTENDED BEYOND THE EARTH TO THE MOON.

ORBIT AROUND THE EARTH.

BETWEEN EARTH AND MOON SHAPES THE MOON'S ORBIT AROUND THE EARTH.

DAYS TO MAKE ONE COMPLETE ORBIT AROUND THE EARTH.

MOON IS DUE TO ITS MOTION AROUND THE EARTH.

TO CHANGE BY HOLDING BALL AND TURNING IT SLOWLY WHILE FLASHLIGHT SHINES ON IT
HANGE SHAPE.

BE THAT SHAPE OF LIGHTED PART OF BALL APPEARS TO CHANGE TO OBSERVER WHOM
EAR TO CHANGE TO ANY OTHER OBSERVER.

THE MOON OVER A PERIOD OF 14 OR 28 NIGHTS RELATING THE CHANGES TO THE SHAPE OF

IN A MATCHING TEST: FULL MOON, HALF MOON, METEOR, METEORITE, COMET, AND

0204630017 KNOW THAT THE HEAD OF A COMET IS A MIXTURE OF ICE AND ROCK.

0204630018 KNOW THAT A COMET, LIKE THE MOON, MAY TRAVEL IN A PREDICTABLE

0204630019 KNOW THAT THE GRAVITATIONAL PULL OF JUPITER MAY AFFECT HALLEY'S COM

0204630020 KNOW THAT THE ORBIT OF HALLEY'S COMET IS AN ELLIPSE.

0204630021 PREDICT THE RETURN OF HALLEY'S COMET FROM A GIVEN DATE RELATING SHA
HISTORY REASONING FOR SUCH PREDICTION.

0204630022 KNOW WHY SOME COMETS DO NOT RETURN.

0204630023 CONSTRUCT MODEL OF ORBIT OF COMET BY DRAWING ON FLOOR SCALE MODEL
CHALK TO TRACE ORBIT LIKE THAT OF COMET.

0204630024 KNOW THAT METEORS MAY BE FRAGMENTS OF DISINTEGRATED COMETS.

0204630025 KNOW THAT FRICTION OF A METEOR AGAINST THE ATMOSPHERE RESULTS IN H

0204630026 KNOW WHY METEORS DO NOT APPEAR AT REGULAR TIMES.

0204630027 IDENTIFY METEORS BY OBSERVING THE NIGHT SKY DURING TIMES OF MET

0204630028 DESCRIBE METEORS BY RECORDING THEIR CHARACTERISTICS AS BRIGHTNESS,

0204640 SOUND

0204640001 EXPLAIN HOW SOUND AS A VIBRATION CREATES A TO-AND-FRO MOTION.

MIXTURE OF ICE AND ROCK.

MAY TRAVEL IN A PREDICTABLE ORBIT.

F JUPITER MAY AFFECT HALLEY'S COMET.

MET IS AN ELLIPSE.

A GIVEN DATE RELATING SHAPE OF ORBIT, MOTION AROUND THE SUN AND PAST
ION.

.

BY DRAWING ON FLOOR SCALE MODEL OF PART OF SOLAR SYSTEM USING STRING AND
COMET.

OF DISINTEGRATED COMETS.

INST THE ATMOSPHERE RESULTS IN HEAT AND LIGHT.

REGULAR TIMES.

NIGHT SKY DURING TIMES OF METEOR SHOWERS.

R CHARACTERISTICS AS BRIGHTNESS, COLOR, DIRECTION PATHS, AND LASTING TIME.

REATES A TO-AND-FRO MOTION.

0204640002	KNOW THAT SOUND IS CAUSED BY A VIBRATING OBJECT.
0204640003	EXPLAIN THE STATEMENT - WHERE THERE IS SOUND THERE IS MOVEMEN
0204640004	DESCRIBE THAT THE RUBBER BAND AND RULER MOVE AS SOUND IS PRODUCE
0204640005	DEMONSTRATE THAT VIBRATION CAUSES SOUND.
0204640006	DEMONSTRATE MAKING OF SOUND, BY PLUCKING A RUBBER BAND STRETCH ONE END IS HELD AGAINST A TABLE.
0204640007	KNOW THAT SOUND TRAVELS IN WAVES, BY MOLECULAR MOTION.
0204640008	DEMONSTRATE A WAVE BY FLIPPING A LOOP ALONG A ROPE THAT IS TIED LENGTH OF THE ROPE.
0204640009	KNOW THAT SOUND TRAVELS BY THE MOTION OF MOLECULES.
0204640010	DISCOVER BY INVESTIGATION THAT WAVES TRANSMIT ENERGY IN ALL DIR
0204640011	CONSTRUCT A STRING TELEPHONE, USING TEN FEET OF STRING AND TWO
0204640012	DESCRIBE THAT SOUNDS PASS BETTER THROUGH A SOLID THAN THROUGH WITHOUT THE STRING TELEPHONE AND BY COMPARING SOUNDS TAPPED
0204640013	DEMONSTRATE THAT SOUND IN THE AIR PASSES THROUGH A SOLID,
0204640014	KNOW THAT SOUND TRAVELS APPROXIMATELY 1,100 FEET PER SECOND
0204640015	KNOW HOW SOUND CAN BE ABSORBED.

A VIBRATING OBJECT.

THERE IS SOUND THERE IS MOVEMENT.

AND RULER MOVE AS SOUND IS PRODUCED.

USES SOUND.

BY PLUCKING A RUBBER BAND STRETCHED AROUND A PIE TIN AND BY PLUCKING A RULER WHILE
LE.

VES, BY MOLECULAR MOTION.

G A LOOP ALONG A ROPE THAT IS TIED AT THE OTHER END, CAUSING THE LOOP TO TRAVEL THE

E MOTION OF MOLECULES.

T WAVES TRANSMIT ENERGY IN ALL DIRECTIONS.

USING TEN FEET OF STRING AND TWO PAPER CUPS.

TER THROUGH A SOLID THAN THROUGH AIR, BY COMPARING WHISPERS HEARD WITH AND
AND BY COMPARING SOUNDS TAPPED ON WALL WITH AND WITHOUT EAR ON WALL.

AIR PASSES THROUGH A SOLID, BY USING THE STRING TELEPHONE.

XIMATELY 1,100 FEET PER SECOND IN THE AIR.

D.

0204640016	KNOW THAT WHEN SOUND HITS A WALL IT CAN BOUNCE BACK.
0204640017	KNOW THAT AN ECHO IS CAUSED BY THE BOUNCE OF SOUND.
0204640018	KNOW THAT THE MOLECULAR THEORY EXPLAINS WHY SOUND TRAVEL
0204640019	KNOW THAT THE PITCH OF A SOUND DEPENDS ON THE RATE OF THE VI
0204640020	DISCOVER THAT THE RATE OF VIBRATION CAN BE CHANGED IN DIFFER
0204640021	STATE TWO WAYS TO CHANGE PITCH.
0204640022	DEMONSTRATE TO PUPILS THAT CHANGING THE RATE OF VIBRAT
0204640023	USE A RULER OR RUBBER BANDS TO DEMONSTRATE THE CHANGES IN PIT
0204640024	DEMONSTRATE HIGH AND LOW PITCH SOUNDS BY PULLING A PIECE OF STI DIFFERENT SPEEDS.
0204640025	IDENTIFY HIGH PITCH WITH FAST VIBRATIONS OF THE CARDBO
0204640026	IN A MATCHING TEST SHOW KNOWLEDGE OF HOW SOUND TRAVELS, THE CA

0204660	WATER
0204660001	KNOW THAT THE WATER SUPPLY IS THE RESULT OF THE CYCLE OF EVAPOR
0204660002	DRAW AND EXPLAIN A DIAGRAM SHOWING THE WATER CYCLE.

ALL IT CAN BOUNCE BACK.

Y THE BOUNCE OF SOUND.

RY EXPLAINS WHY SOUND TRAVELS BETTER IN A SOLID THAN IN A GAS.

ND DEPENDS ON THE RATE OF THE VIBRATION.

RATION CAN BE CHANGED IN DIFFERENT WAYS.

H.

ANGING THE RATE OF VIBRATION CHANGES THE PITCH.

O DEMONSTRATE THE CHANGES IN PITCH.

H SOUNDS BY PULLING A PIECE OF STIFF CARDBOARD ACROSS THE TEETH OF A COMB, AT

T VIBRATIONS OF THE CARDBOARD AND COMB, AND LOW PITCH WITH SLOW VIBRATIONS.

EDGE OF HOW SOUND TRAVELS, THE CAUSE OF ECHO, AND THE SPEED OF THE TRAVEL OF SOUND.

THE RESULT OF THE CYCLE OF EVAPORATION AND CONDENSATION.

OWING THE WATER CYCLE.

0204660003	EXPLAIN THE WORK OF THE SUN IN THE WATER CYCLE.	
0204660004	KNOW THAT WATER IS A COMPONENT OF ALL ORGANISMS.	
0204660005	STATE THAT WATER IS A PART OF ALL LIVING THINGS.	(DEMON
0204660006	EXPLAIN HOW SAND CAN BE USED TO FILTER SOME MATERIALS	OUT OF
0204660007	CONSTRUCT A MODEL OF A WATER PURIFYING SYSTEM, BY	PLACEI
	OVER THE COTTON, SO THAT POURED LIQUIDS WILL PASS	THROUG
0204660008	DEMONSTRATE THE USE OF THE MODEL WATER-PURIFIER BY	POURIN
	FILTERING OUT SOIL PARTICLES, AND ALLOWING MUCH CLEARER	WATER
0204660009	DEMONSTRATE THAT SETTLING IS ONE WAY OF CLEANING WATER,	BY MIXI
	STAND FOR A WHILE, CAUSING PARTICLES TO SETTLE TO THE	BOTTOM
0204660010	KNOW THAT WATER CONTAINING DISSOLVED SUBSTANCES IS	HEAVIE
0204660011	KNOW THAT THE WATER TABLE MARKS THE WATER LEVEL IN SOIL.	
0204660012	DEMONSTRATE THERE IS A QUANTITY OF WATER IN AN APPLE BY	WEIGHI
	INTO SMALL PIECES ALLOWING THEM TO DRY FOR FEW DAYS AND	WEIGHI
0204660013	DESCRIBE THE WEIGHT OF THE APPLE BEFORE AND AFTER	DRYING,
	OF THE WATER LOST FROM THE APPLE.	
0204670	WEATHER (CLOUDS)	
0204670001	KNOW AS RISING AIR COOLS, WATER VAPOR CONDENSES TO FORM	A CLOU

E WATER CYCLE.

ALL ORGANISMS.

LIVING THINGS. (DEMONSTRATING THAT THERE IS WATER IN FOOD).

ILTER SOME MATERIALS OUT OF WATER.

FYING SYSTEM, BY PLACEING COTTON IN A FUNNEL AND ADDING A LAYER OF SAND
IQUIDS WILL PASS THROUGH THE FILTER INTO A JAR.

WATER-PURIFIER BY POURING WATER FROM THE SETTLING JAR INTO THE FUNNEL
ALLOWING MUCH CLEARER WATER TO PASS THROUGH.

WAY OF CLEANING WATER, BY MIXING WATER AND SOIL, THEN ALLOWING THE MIXTURE TO
LES TO SETTLE TO THE BOTTOM.

VED SUBSTANCES IS HEAVIER THAN PURE WATER.

HE WATER LEVEL IN SOIL.

OF WATER IN AN APPLE BY WEIGHING APPLE WITH SPRING SCALE. THEN CUTTING APPLE
TO DRY FOR FEW DAYS AND WEIGHING PIECES AGAIN.

BEFORE AND AFTER DRYING, THE WEIGHT LOST FROM THE APPLE, AND THE WEIGHT
.

VAPOR CONDENSES TO FORM A CLOUD.

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0204680         WEATHER (PRECIPITATION)

0204680001      KNOW THAT RAIN FORMS AS CLOUD DROPLETS COME TOGETHER     INTO

0204680002      UNDERSTAND THAT CLOUD DROPLETS ARE FORMED BY THE COOLING OF WA

0204680003      KNOW THAT CLOUD DROPLETS COLLIDE TO MAKE RAINDROPS.

0204680004      UNDERSTAND HOW ICE SPECKS MELT TO MAKE RAINDROPS.



0204690         WEATHER (RECORDING)

0204690001      KEEP DAILY RECORD OF YOUR OBSERVATIONS OF ELEMENTS OF    WEATH
                FOR RECORDING ANY INFORMATION YOU CANNOT OBSERVE         YOURS

0204690002      USING A RAIN-GAUGE, ACQUIRE DATA EACH DAY TO MAKE A      LONG-

0204690003      USING A RAIN GAUGE, RECORD THE AMOUNT OF RAINFALL FOR A  MONTH

0204690004      USING THE THERMOMETER, ACQUIRE DATA EACH DAY TO MAKE A   LONG-

0204690005      USING A WIND VANE, ACQUIRE DATA EACH DAY TO MAKE A       LONG-

0204690006      USING WEATHER INSTRUMENTS, OBSERVATIONS AND WEATHER      KNOWL
                TABLE OR GRAPH.

0204690007      CONSTRUCT A POINT GRAPH OR LINE GRAPH FROM A WEATHER     MAP E

0204690008      FROM OBSERVATIONS AND WEATHER KNOWLEDGE, INTERPRET       INFOR

0204690009      CONSTRUCT A WEATHER CHART BASED ON THE DATA TAKEN FROM   AN AE
                WIND AT A GIVEN TIME.
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LETS COME TOGETHER INTO LARGER DROPS OF WATER.

FORMED BY THE COOLING OF WATER VAPOR.

MAKE RAINDROPS.

MAKE RAINDROPS.

IONS OF ELEMENTS OF WEATHER FOR TWO WEEKS. USE REPORTS FROM WEATHER BUREAU
CANNOT OBSERVE YOURSELF.

ACH DAY TO MAKE A LONG-RANGE WEATHER CHART.

UNT OF RAINFALL FOR A MONTH AND GRAPH THIS INFORMATION ON A LINE GRAPH.

A EACH DAY TO MAKE A LONG-RANGE WEATHER CHART.

CH DAY TO MAKE A LONG-RANGE WEATHER CHART.

TIONS AND WEATHER KNOWLEDGE, IDENTIFY AND NAME ALL INFORMATION SHOWN IN A

APH FROM A WEATHER MAP EACH DAY.

LEDGE, INTERPRET INFORMATION SHOWN IN A TABLE OR GRAPH.

THE DATA TAKEN FROM AN AEROVANE TO SHOW THE VELOCITY AND DIRECTIONS OF THE

0204690010	CONSTRUCT A WEATHER CHART BASED ON THE DATA TAKEN FROM AN ANEMOMET
0204690011	CONSTRUCT A WEATHER CHART BASED ON THE DATA TAKEN FROM A TIDE GAUGE GIVEN TIME.

DATA TAKEN FROM AN ANEMOMETER.

DATA TAKEN FROM A TIDE GAUGE TO SHOW THE RISE AND FALL OF THE TIDES AT A

0205005	ADAPTATION (ANIMALS)
0205005001	KNOW THAT GROWTH OF ORGANISMS FROM EGG TO ADULT PROVIDES MANY EXAMPL
0205005002	KNOW THAT THE ADAPTATIONS OF AN ANIMAL TO ITS ENVIRONMENT TO THE FUNCTIONS SERVED.
0205005003	EXPLAIN HOW MAMMALS ARE BETTER ADAPTED FOR THE PROTECTION
0205005004	INFER THAT THE ENVIRONMENT OF PAST ANIMALS WAS DIFFERENT FROM THE PR FOUND.
0205005005	INFER SOME OF THE STRUCTURAL ADAPTATIONS OF EARLY LIFE.
0205005006	DEVELOP A SEQUENTIAL PATTERN ON A CHART FOR THE APPEARANCE
0205025	ADAPTATION (HABITAT)
0205025001	KNOW THAT THERE IS AN INTERCHANGE OF MATTER AND ENERGY BETWEEN THE
0205025002	KNOW THAT MOST LIVING THINGS DEPEND ON A CONTINUOUS SUPPLY OF O
0205025003	KNOW THAT EACH KIND OF ORGANISM IS ADAPTED TO A SPECIAL ENVIRONMENT
0205025004	KNOW THAT THE ENVIRONMENT TO WHICH AN ORGANISM IS ADAPTED SUP
0205025005	KNOW THAT MAN, LIKE ALL OTHER LIVING THINGS, IS DEPENDENT O LIVING THINGS IN IT.
0205025006	KNOW THAT AN ORGANISM MUST HAVE AN ENVIRONMENT THAT SUPPLIES IT
0205025007	INFER THAT ENVRIONMENTAL CONDITIONS AFFECT THE DEVELOPMENT

FROM EGG TO ADULT PROVIDES MANY EXAMPLES OF ADAPTIVE CHANGE AND DEVELOPMENT.

AN ANIMAL TO ITS ENVIRONMENT CAN BE UNDERSTOOD BY RELATING BONE STRUCTURE

R ADAPTED FOR THE PROTECTION AND CARE OF THEIR YOUNG.

PAST ANIMALS WAS DIFFERENT FROM THE PRESENT ENVIRONMENT IN WHICH THEIR FOSSILS ARE

ADAPTATIONS OF EARLY LIFE.

ON A CHART FOR THE APPEARANCE OF THE DIFFERENT FORMS OF LIFE.

ANGE OF MATTER AND ENERGY BETWEEN THE ORGANISM AND ITS ENVIRONMENT.

DEPEND ON A CONTINUOUS SUPPLY OF OXYGEN.

SM IS ADAPTED TO A SPECIAL ENVIRONMENT.

WHICH AN ORGANISM IS ADAPTED SUPPLIES ALL THE ORGANISM'S NEEDS.

LIVING THINGS, IS DEPENDENT ON HIS ENVIRONMENT---ON ALL THE MATTER AND

VE AN ENVIRONMENT THAT SUPPLIES ITS NEEDS IN ADEQUATE AMOUNTS.

ITIONS AFFECT THE DEVELOPMENT OF AN ORGANISM.

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0205025008     TESTS OF FOODS GIVE INSIGHT INTO THE MATTER LIVING       THINGS TAK

0205025009     KNOW THAT A LIVING THING IS THE PRODUCT OF ITS HEREDITY  AND ENVIRO

0205025010     DEVELOP UNDERSTANDING OF THE IMPORTANCE OF ADAPTATIONS   OF STRUCTU

0205025011     KNOW THAT STRUCTURAL ADAPTATIONS TO ENVIRONMENTS OF THE  PAST OCCUR

0205025012     KNOW THAT GRADUAL CHANGES OF STRUCTURE IN WATER ANIMALS  OF THE ANC

0205025013     COMPARE ENVIRONMENTAL CONDITIONS IN WATER AND ON LAND    AND RELATE

0205025014     COMPARE ENVIRONMENTAL CONDITIONS IN WATER AND ON LAND    AND RELATE

0205025015     ANALYZE THE RELATIONSHIP BETWEEN ENVIRONMENT AND LIVING  THINGS.

0205025016     PREDICT WHICH OF SEVERAL EXPERIMENTS IS BEST DESIGNED TO ANSWER GIV
               (TEMPERATURE, AIR SUPPLY, LIGHT, WATER, FOOD) ON         BEHAVIOR O



0205030        ADAPTATION (MAN)

0205030001     WRITES A PARAGRAPH DESCRIBING THE DETAILS OF PROBLEMS    MAN WILL F
               HEAT, COLD).


0205035        ADAPTATION (PLANTS)

0205035001     INFER THAT CELL WALLS SUPPORT AND STIFFEN THE STRUCTURE  OF PLANTS.

0205035002     KNOW THAT AS PRIMITIVE PLANTS DEVELOPED STIFFER CELL     WALLS, THE
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NTO THE MATTER LIVING          THINGS TAKE FROM THEIR ENVIRONMENT.

HE PRODUCT OF ITS HEREDITY     AND ENVIRONMENT.

IMPORTANCE OF ADAPTATIONS      OF STRUCTURE TO SUCCESSFUL SURVIVAL IN AN ENVIRONMENT.

ONS TO ENVIRONMENTS OF THE     PAST OCCURRED SLOWLY.

STRUCTURE IN WATER ANIMALS     OF THE ANCIENT SEAS ADAPTED THEM FOR LAND LIVING.

ONS IN WATER AND ON LAND       AND RELATE THESE ENVIRONMENTS TO DEVELOPING LIFE FORMS.

ONS IN WATER AND ON LAND       AND RELATE THESE ENVIRONMENTS TO DEVELOPING LIFE FORMS.

EEN ENVIRONMENT AND LIVING     THINGS.

RIMENTS IS BEST DESIGNED TO    ANSWER GIVEN QUESTION ABOUT EFFECT OF VARIABLES
HT, WATER, FOOD) ON            BEHAVIOR OF GROWTH OF ORGANISM IN ITS ENVIRONMENT.




 THE DETAILS OF PROBLEMS       MAN WILL FIND IN A NEW ENVIRONMENT (OXYGEN, ATMOSPHERE,




 AND STIFFEN THE STRUCTURE     OF PLANTS.

 DEVELOPED STIFFER CELL        WALLS, THEY GREW TALLER.
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0205040	ADAPTATION (PLANTS AND ANIMALS)
0205040001	KNOW THAT LIVING THINGS HAVE CHANGED OVER THE AGES.
0205040002	KNOW THAT LIVING THINGS HAVE BEEN CHANGING SINCE LIFE FIRST B
0205040003	DEVELOP A SEQUENTIAL PATTERN FOR THE APPEARANCE OF THE DIFFERE
0205050	AMPHIBIANS
0205050001	OBSERVE AND STUDY THE LIFE CYCLE OF AN AMPHIBIAN.
0205050002	DESCRIBE GROWTH AND DEVELOPMENT OF FROG. OBSERVE EGGS IN ACQU GROW TO FROGS.
0205050003	DESCRIBE FROG BEGINNING LIFE AS SINGLE CELL MULTIPLIES BY CELL BREATHING FROG.
0205055	ANIMALS
0205055001	IDENTIFY BALL ON THE END OF THIGH BONE AND SOCKET OF HIP BONE.
0205055002	RECONSTRUCT THE LEG BONES OF A COOKED CHICKEN AND LABEL THE BAL
0205055003	ORDER BONES OF THE LEG OF COOKED CHICKEN WHEN GIVEN THEM SEPARAT
0205055004	CONTROL THE ENVIRONMENT AND DIET OF AN ANIMAL AND OBSERVE THE NON-CONTROLLED ANIMAL.
0205055005	CONSTRUCT SMALL SYSTEM FOR OBSERVING SEALED-IN ORGANISM. SEAL AQ

ANGED OVER THE AGES.

EN CHANGING SINCE LIFE FIRST BEGAN ON EARTH OVER TWO BILLION YEARS AGO.

R THE APPEARANCE OF THE DIFFERENT FORMS OF LIFE.

E OF AN AMPHIBIAN.

OF FROG. OBSERVE EGGS IN ACQUARIUM AS THEY DEVELOP AND HATCH INTO TADPOLES AND

SINGLE CELL MULTIPLIES BY CELL DIVISION, FORMS STRUCTURES, DEVELOPS INTO AIR

GH BONE AND SOCKET OF HIP BONE.

COOKED CHICKEN AND LABEL THE BALL AND SOCKET JOINTS CORRECTLY.

D CHICKEN WHEN GIVEN THEM SEPARATED.

T OF AN ANIMAL AND OBSERVE THE CHANGE IN THE CONTROLLED ANIMAL WITH THAT OF

RVING SEALED-IN ORGANISM. SEAL AQUATIC PLANTS, SAND, AQUARIUM WATER IN JAR.

0205065	CELLS
0205065001	DEFINE IN WRITING AND ORALLY WHAT THE WORD CELL MEANS.
0205065002	CONSTRUCT MICROSCOPE SLIDE PREPARATION. PLACE SCRAPING OF INSIDE C ADD COVER SLIP.
0205065003	DESCRIBE SHAPE OF CELLS.
0205065004	IDENTIFY NUCLEUS IN CELL.
0205065005	CONSTRUCT MODEL OF A CELL. USE MIXTURE OF WATER, CLEAR GELATIN, S WILL GARDEN INSIDE SEALED PLASTIC BAG.
0205065006	IDENTIFY PARTS OF MODEL SIMILAR TO CELL, AS GELATIN FOR CYTOPLASM
0205065007	KNOW THAT CELLS INTERCHANGE MATTER AND ENERGY WITH THE ENVIRONMENT
0205065008	INFER, THROUGH INVESTIGATION, THAT A YEAST CELL GETS ENERGY FOR
0205065009	DEMONSTRATE THAT YEAST CELLS INCREASE WITH REPRODUCTION. COMPARE SMA WITH WATER AND SAME AMOUNT MIXED WITH SUGAR AND WATER. FILTER BOTH
0205065010	DESCRIBE DIFFERENCE DUE TO GROWTH AND REPRODUCTION OF YEAST CELLS
0205065011	DEMONSTRATE THAT A CELL MEMBRANE ALLOWS SOME MATERIALS TO PASS THR SOLUTION. STARCH TURNS BLUE-BLACK.
0205065012	DESCRIBE THAT IODINE SOLUTION PASSES INTO CELL MODEL; STARCH DID
0205065013	KNOW THAT ENERGY WITHIN A CELL COMES FROM A CYCLE OF BREAKING DO MOLECULES (THE CELL ENERGY PROCESS).
0205065014	KNOW THAT ENERGY IS A CYCLICAL PROCESS---ALL WITHIN A TINY CELL.

AT THE WORD CELL MEANS.

ARATION. PLACE SCRAPING OF INSIDE CHEEK ON DROP OF WATER ON GLASS SLIDE; STAIN;

MIXTURE OF WATER, CLEAR GELATIN, STARCH, COLOGNE, SMALL PIECES OF CLAY; GELATIN
IC BAG.

TO CELL, AS GELATIN FOR CYTOPLASM PLASTIC BAG FOR MEMBRANE, CLAY FOR NUCLEUS.

TER AND ENERGY WITH THE ENVIRONMENT.

HAT A YEAST CELL GETS ENERGY FOR GROWTH FROM SUGAR.

CREASE WITH REPRODUCTION. COMPARE SMALL AMOUNT OF YEAST CELLS AFTER 3 DAYS MIXED
D WITH SUGAR AND WATER. FILTER BOTH ONTO PAPER.

TH AND REPRODUCTION OF YEAST CELLS IN SUGAR SOLUTION.

E ALLOWS SOME MATERIALS TO PASS THROUGH. USE CELL MODEL; PLACE IN IODINE
ACK.

ASSES INTO CELL MODEL; STARCH DID NOT COME OUT (IODINE NOT TURNED BLUE-BLACK).

COMES FROM A CYCLE OF BREAKING DOWN AND BUILDING HIGH ENERGY CONTAINING
ESS).

PROCESS---ALL WITHIN A TINY CELL.

0205065015	DESCRIBE THE ENERGY CYCLE IN CELLS.
0205065016	DERIVE INSIGHT INTO DIFFUSION AS A BASIC PROCESS IN ALL BODIES, ES
0205065017	UNDERSTAND THAT THE CELL MEMBRANE DELIMITS THE CELL AS A FUNCTIONIN
0205065018	THROUGH THE CONSTRUCTION OF MODELS, GAIN A BETTER IDEA OF CELL ST
0205065019	KNOW THAT CELLS ARE SPECIALIZED FOR DIFFERENT FUNCTIONS.
0205065020	KNOW THAT CELLS REPROCUCE THEMSELVES.
0205065021	KNOW THAT WHEN CELLS DIVIDE, EACH NEW CELL HAS ITS OWN NUCLEUS.
0205065022	PERCEIVE THAT CELL DIVISION TAKES PLACE BY CONTINUAL DOUBLING.
0205065023	KNOW THAT A SINGLE-CELLED ORGANISM PERFORMS ALL THE LIFE FUNCTIONS COMMUNITY OF INTERDEPENDENT CELLS.
0205065024	BUILD A FOUNDATION FOR UNDERSTANDING ORGANIZATION OF CELL STRUC
0205065025	EXPLAIN THE FUNCTIONS OF EACH TYPE CELL IN THE BODY.
0205065026	VISUALIZE HOW CHROMOSOMES DUPLICATE IN CELL DIVISION.
0205065027	DEMONSTRATE KNOWLEDGE OF ANIMAL CELL REPRODUCTION BY DRAWING TH CELL HAS THE SAME NUMBER OF CHROMOSOMES, AND NAMING SUBSTANCES
0205065028	KNOW THAT GROWTH IN A MANY-CELLED ORGANISM CONSISTS IN MULTIPLICA

LS.

A BASIC PROCESS IN ALL BODIES, ESPECIALLY CELLS.

E DELIMITS THE CELL AS A FUNCTIONING UNIT.

LS, GAIN A BETTER IDEA OF CELL STRUCTURE.

FOR DIFFERENT FUNCTIONS.

LVES.

H NEW CELL HAS ITS OWN NUCLEUS.

S PLACE BY CONTINUAL DOUBLING.

SM PERFORMS ALL THE LIFE FUNCTIONS WITHIN THE CELL; A MANY-CELLED ORGANISM IS A
S.

DING ORGANIZATION OF CELL STRUCTURE FOR CELL FUNCTION WITHIN ORGANISMS.

PE CELL IN THE BODY.

ATE IN CELL DIVISION.

CELL REPRODUCTION BY DRAWING THREE STAGES OF CELL DIVISION; STATE EACH NEW
MOSOMES, AND NAMING SUBSTANCES RESPONSIBLE.

D ORGANISM CONSISTS IN MULTIPLICATION AND DIFFERENTIATION OF CELLS.

0205065029	DISCOVER THE DISTINCTION BETWEEN CYTOPLASM AND PROTOPL
0205065030	KNOW THAT PROTOPLASM, THE LIVING MATERIAL IN THE CELL, IS COMP CRUST AND ATMOSPHERE.
0205065031	KNOW THAT PROTOPLASM CONTAINS COMMON ELEMENTS AND COMPOUN
0205065032	WRITE OR TELL THREE OF THE FIVE KINDS OR COMPOUNDS FOUND I
0205065033	SHOW RECOGNITION OF THE WORD PROTOPLASM THROUGH A MATCHIN
0205065034	KNOW THAT THE CELL IS THE UNIT OF STRUCTURE AND FUNCTIO
0205065035	KNOW THAT FOOD SUBSTANCES DIFFUSE THROUGH MEMBRANES.
0205065036	KNOW THAT CELLS WITH DIFFERENT FUNCTIONS APPEAR DIFFERE
0205065037	SEE THE UNITY (THE BASIC STRUCTURE) IN ALL CELLS AND THE DIVERSI
0205065038	KNOW THAT CELLS SECRETE NONLIVING MATERIAL.
0205065039	KNOW THAT IN MANY-CELLED ORGANISMS, GROUPS OF CELLS AND TISSUES SPECIALIZED TO PERFORM THE BODY'S FUNCTIONS.
0205065040	KNOW THAT SIMILAR CELLS WITH SIMILAR FUNCTIONS ARE ORGANIZ
0205065041	KNOW THAT ORGANISMS ARE MADE UP OF CELLS. THE UNIT OF STRUCTU
0205065042	MAKE DRAWINGS OF ALL THE TYPES OF CELLS IN THE BODY AND LABEL D

BETWEEN CYTOPLASM AND PROTOPLASM.

LIVING MATERIAL IN THE CELL, IS COMPOSED OF ELEMENTS AND COMPOUNDS IN THE EARTH'S

AINS COMMON ELEMENTS AND COMPOUNDS.

E FIVE KINDS OR COMPOUNDS FOUND IN CELLS.

ORD PROTOPLASM THROUGH A MATCHING TEST.

UNIT OF STRUCTURE AND FUNCTION; A LIVING THING DEVELOPS FROM A SINGLE CELL.

DIFFUSE THROUGH MEMBRANES.

ERENT FUNCTIONS APPEAR DIFFERENT IN DETAIL, BUT NOT IN BASIC STRUCTURES.

STRUCTURE) IN ALL CELLS AND THE DIVERSITY IN TERMS OF ADAPTATION TO FUNCTION.

ONLIVING MATERIAL.

ORGANISMS, GROUPS OF CELLS AND TISSUES ARE ORGANIZED INTO ORGAN SYSTEMS, ALL
E BODY'S FUNCTIONS.

ITH SIMILAR FUNCTIONS ARE ORGANIZED INTO TISSUES.

ADE UP OF CELLS. THE UNIT OF STRUCTURE AND FUNCTION IN THE ORGANISM IS THE CELL.

TYPES OF CELLS IN THE BODY AND LABEL DRAWINGS.

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0205065043      KNOW THAT THE SINGLE-CELLED ORGANISMS THAT DEVELOPED IN  THE EARLY
                LATER ERAS;  ADAPTATION TO THE ENVIRONMENT PRODUCED MORE COMPLEX S



0205070         CLASSIFICATION

0205070001      KNOW THAT OBJECTS AND EVENTS CAN BE GROUPED OR           CLASSIFIE



0205075         CLASSIFY (ANIMALS)

0205075001      GIVEN THE CHARACTERISTICS OF SEVERAL ANIMALS, CONSTRUCT  A NEW CLAS
                SIMILARITIES, I.E., PETS, SMALL ANIMALS, LARGE ANIMALS   AND HARMFU

0205075002      WHEN GIVEN A LIST OF THIRTY DIFFERENT ANIMALS (OR        PICTURES
                20 OF THE ANIMALS OR ANIMAL PICTURES INTO GROUPS, I.E.,  MAMMALS,

0205075003      WRITE A PARAGRAPH OR TWO ON THIS TOPIC:  HOW SCIENTISTS  KNOW WHIC

0205075004      DESCRIBE AT LEAST TWO CHANGES IN THE STRUCTURE OF A      HORSE DURI

0205075005      EXPLORE EVIDENCES OF LIFE IN THE PAST.  DRAW INFERENCES  ABOUT A FO
                FUNCTIONS OF BONES FROM A LIVING ANIMAL.


0205080         CLASSIFY BY FIVE SENSES

0205080001      RECOGNIZE SEVERAL PROPERTIES OF AN OBJECT OR SUBSTANCE   INCLUDING
                STATE OF MATTER;  RECOGNIZE THE SENSE USED TO DETERMINE  EACH OF TH


0205085         CLASSIFY BY KIND, FORM, AND PROPERTIES

0205085001      USING A GRADUATED CYLINDER, MEASURE QUANTITIES OF WATER  TO WITHIN
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IMS THAT DEVELOPED IN THE EARLY SEAS GAVE RISE TO THE MANY-CELLED ORGANISMS OF
IRONMENT PRODUCED MORE COMPLEX STRUCTURES.

GROUPED OR CLASSIFIED.

L ANIMALS. CONSTRUCT A NEW CLASSIFICATION SYSTEM GROUPING ANIMALS BY THEIR
IMALS, LARGE ANIMALS AND HARMFUL ANIMALS.

NT ANIMALS (OR PICTURES OF THIRTY DIFFERENT ANIMALS), CLASSIFY AT LEAST
S INTO GROUPS, I.E., MAMMALS, BIRDS OR AMPHIBIANS.

PIC: HOW SCIENTISTS KNOW WHICH BONES OF A FOSSIL FIT TOGETHER.

E STRUCTURE OF A HORSE DURING SIXTY MILLION YEARS.

ST. DRAW INFERENCES ABOUT A FOSSIL ANIMAL BY EXAMINING THE STRUCTURE AND
IMAL.

OBJECT OR SUBSTANCE INCLUDING COLOR, SHAPE, SIZE, TEXTURE, TASTE, ODOR,
NSE USED TO DETERMINE EACH OF THESE PROPERTIES.

IES

QUANTITIES OF WATER TO WITHIN TWO MILLILITERS OF EXACTNESS.

0205085002	USE AN ELEMENTARY BALANCE SCALE TO WEIGH OBJECTS TO THE NEAREST
0205090	CLASSIFY (MATTER)
0205090001	GIVEN A LIST OF SUBSTANCES, IDENTIFY EACH SUBSTANCE AS A GAS, LIQ
0205090002	GIVEN A LIST OF SUBSTANCES, IDENTIFY EACH SUBSTANCE AS A GAS, LIQ
0205090003	GIVEN SITUATION IN WHICH OBJECT OR SUBSTANCE MUST FIT INTO PRE CAPACITY, EXPLAIN WHETHER IT IS MOST IMPORTANT TO KNOW ABOUT MA
0205090004	IDENTIFY AN ACCEPTABLE DEFINITION OF THE TERMS MATTER, MOLECULE
0205090005	ON A DIAGRAM SHOWING THE PARTS OF AN ATOM, RECOGNIZE THE NUCLEUS,
0205100	CLASSIFY (PLANT AND ANIMAL)
0205100001	KNOW THAT SEDIMENTARY DEPOSITS INDICATE AGE OF FOSSILS.
0205100002	INFER THAT THE AGE OF FOSSILS CAN BE DATED WITH GREAT ACCURACY
0205100003	FROM A GRAPH OF SEDIMENTARY LAYERS AND FOSSILS DETERMINE THE OLDE
0205100004	KNOW THAT LIVING THINGS CAN GROW AND CAN REPRODUCE.
0205100005	KNOW THAT PLANTS AND ANIMALS ARE USEFUL TO MAN IN MANY WAYS.

TO WEIGH OBJECTS TO THE NEAREST GRAM.

TIFY EACH SUBSTANCE AS A GAS, LIQUID, OR A SOLID.

TIFY EACH SUBSTANCE AS A GAS, LIQUID, OR A SOLID.

OR SUBSTANCE MUST FIT INTO PRESCRIBED SPACE OR CONFORM TO GIVEN WEIGHT
MOST IMPORTANT TO KNOW ABOUT MATERIAL'S WEIGHT OR ITS VOLUME.

N OF THE TERMS MATTER, MOLECULE, ATOM, ELECTRON, AND NEUTRON.

F AN ATOM, RECOGNIZE THE NUCLEUS, A PROTON, AN ELECTRON, AND A NEUTRON.

NDICATE AGE OF FOSSILS.

N BE DATED WITH GREAT ACCURACY.

RS AND FOSSILS DETERMINE THE OLDEST.

AND CAN REPRODUCE.

USEFUL TO MAN IN MANY WAYS.

0205105	CLASSIFY (PLANT AND ANIMAL CELLS)
0205105001	GIVEN A SIMPLE SLIDE AND A MICROSCOPE, CLASSIFY OBJECTS ON THE SL (E.G., AIR BUBBLES, DIRT, CRYSTALS).
0205105002	KNOW THAT PLANT AND ANIMAL CELLS HAVE BASICALLY SIMILAR STRUCTURE
0205105003	IDENTIFY FROM GROUP OF PICTURES EXHIBITING CELL STRUCTURE 1. PLANT CELLS 2. ANIMAL CELLS, OR 3. BOTH.
0205105004	KNOW THAT PLANT AND ANIMAL CELLS CHANGE MATTER AS THEY INTERCHAN
0205110	CLOTH
0205110001	EVALUATE THE USEFULNESS OF PLANT AND ANIMAL FIBERS.
0205110002	DISTINGUISH BETWEEN WOOL AND COTTON. OBSERVE ODOR OF BURNING F
0205115	ECOLOGY
0205115001	AFTER VIEWING A FILM ON CONSERVATION LIST FIVE CONSERVAT
0205115002	USING LIBRARY RESOURCES, WRITE TO THE SATISFACTION OF THE TEACH PRACTICES'.
0205115003	RELATE CONSERVATION PRACTICES TO 3 OF 5 COMPONENTS IN HIS ENVIR
0205120	ELECTRICITY
0205120001	WHEN GIVEN A LESSON ON THE USEFULNESS OF ELECTRICITY OF TODAY, WR BE LIKE WITH OUT ELECTRICITY.

LASSIFY OBJECTS ON THE SLIDE AS CELLS OR OBJECTS WHICH ARE NOT CELLS

STICALLY SIMILAR STRUCTURES.

NG CELL STRUCTURE THOSE CELLULAR CHARACTERISTICS PRESENT ONLY
TH.

MATTER AS THEY INTERCHANGE MATTER AND ENERGY WITH THE ENVIRONMENT.

MAL FIBERS.

SERVE ODOR OF BURNING PROTEIN WITH WOOL AND NOT COTTON.

T FIVE CONSERVATION PRACTICES THAT SHOULD BE MODIFIED.

TISFACTION OF THE TEACHER, A COMPOSITION TITLED 'ACCEPTED CONSERVATION

COMPONENTS IN HIS ENVIRONMENT (WATER, AIR, WILDLIFE, LAND, MINERAL).

ELECTRICITY OF TODAY, WRITE AT LEAST TWO PARAGRAPHS ON WHAT LIFE WOULD

0205120002	WHEN PROVIDED WITH APPROPRIATE MATERIALS TO BUILD AN ELEC LIGHT BULB), HYPOTHESIZE WHAT WOULD HAPPEN IF ALL THE COMP
0205125	ENERGY TRANSFORMATION
0205125001	KNOW THAT GRAVITATION IS UNIVERSAL.
0205125002	KNOW THAT WEIGHT IS A MEASURE OF GRAVITATIONAL PULL ON A MASS
0205125003	INFER THAT THE LESS THE MASS, THE LESS ITS GRAVITATIONAL PULL OVERCOME IT.
0205125004	INFER THAT THE GREATER THE MASS, THE GREATER ITS GRAV BE USED TO OVERCOME IT.
0205125005	KNOW THAT TO MOVE AN OBJECT, ENERGY MUST BE APPLIED TO OVER
0205125006	TELL HOW ENERGY IS USEFUL TO YOU WHEN RELEASED.
0205125007	KNOW THAT CHANGES ARE PREDICTABLE.
0205125008	KNOW THAT MATTER CAN BE CHANGED INTO ENERGY. HOWEVER THE REMAINS THE SAME.
0205125009	KNOW THAT WHEN ENERGY CHANGES FROM ONE FORM TO ANOTHER, THE
0205135	ENERGY TRANSFORMATION (ATOMS)
0205135001	KNOW THAT THE EARTH'S MATTER IS BUILT UP OF ATOMS COMB
0205135002	KNOW THAT AN ELEMENT IS MADE UP OF ONE KIND OF ATOM, WITH BUILDING BLOCKS OF MATTER.

MATERIALS TO BUILD AN ELECTRICAL CIRCUIT (DRY CELL, COPPER WIRE AND FLASH
WOULD HAPPEN IF ALL THE COMPONENTS WERE CONNECTED CORRECTLY.

RSAL.

OF GRAVITATIONAL PULL ON A MASS.

THE LESS ITS GRAVITATIONAL PULL AND THE LESS THE ENERGY WHICH MUST BE USED TO

S, THE GREATER ITS GRAVITATIONAL PULL AND THE GREATER THE ENERGY WHICH MUST

NERGY MUST BE APPLIED TO OVERCOME THE PULL OF GRAVITATION.

OU WHEN RELEASED.

BLE.

D INTO ENERGY. HOWEVER THE TOTAL AMOUNT OF MATTER AND ENERGY IN THE UNIVERSE

FROM ONE FORM TO ANOTHER, THE TOTAL AMOUNT OF ENERGY REMAINS UNCHANGED.

IS BUILT UP OF ATOMS COMBINED IN MANY WAYS.

P OF ONE KIND OF ATOM, WITH A DEFINABLE SET OF PROPERTIES. ATOMS ARE THE

0205135003	TELL OR SHOW BY MODEL THAT ALL MATTER IS COMPOSED OF	A
0205135004	ON A DIAGRAM SHOWING THE PARTS OF AN ATOM, RECOGNIZE THE	N
0205135005	INFER THERE IS NO CHANGE IN WEIGHT AS ATOMS RECOMBINE	I
0205145	ENERGY TRANSFORMATION (CARBON DIOXIDE)	
0205145001	EXAMINE THE MAKING OF CARBON DIOXIDE BY YEAST, AND INFER	T
0205145002	DEMONSTRATE YEAST IN SUGAR MAKES CARBON DIOXIDE. PUT SET 10 MINUTES; BUBBLES TURN LIMEWATER MILKY.	P
0205145003	CONSTRUCT CARBON DIOXIDE GENERATOR. USE EGG SHELLS IN DISPLACEMENT.	V
0205145004	DEMONSTRATE TEST FOR CARBON DIOXIDE. USE GAS IN ABOVE CLOUDY.	A
0205145005	DEMONSTRATE SIMILARITY OF MILKY LIMEWATER TO EGGSHELL. ACTION ON LIMEWATER.	C
0205145006	SHOW SOAKED SEEDS MAKE CARBON DIOXIDE. PUT SOAKED LIMA SQUEEZE GENERATOR; GAS BUBBLES INTO LIMEWATER, TURNS	B M
0205145007	DESCRIBE BUBBLES OF GAS GIVEN OFF AS CARBON DIOXIDE.	
0205150	ENERGY TRANSFORMATION (CHEMICAL)	
0205150001	KNOW THAT IN CHEMICAL AND PHYSICAL CHANGE, THE TOTAL	A
0205150002	STATE THE CONCEPT THAT IN AN ORDINARY CHEMICAL REACTION	M

TTER IS COMPOSED OF ATOMS.

AN ATOM, RECOGNIZE THE NUCLEUS, A PROTON, AN ELECTRON, AND A NEUTRON.

T AS ATOMS RECOMBINE INTO NEW SUBSTANCES.

XIDE)

IDE BY YEAST, AND INFER THAT YEAST CELLS ARE ALIVE.

CARBON DIOXIDE. PUT POWDERED YEAST, SUGAR, IN WARM WATER IN GAS GENERATOR;
EWATER MILKY.

R. USE EGG SHELLS IN VINEGAR IN FLASK; COLLECTS BUBBLES BY WATER

DE. USE GAS IN ABOVE ACTIVITIES; ADD LIMEWATER; MIX; LIMEWATER TURNS

IMEWATER TO EGGSHELL. COMPARE BUBBLING ACTION OF VINEGAR ON SHELL AND SIMILAR

XIDE. PUT SOAKED LIMA BEANS ON WET COTTON IN GAS GENERATOR; LET STAND;
TO LIMEWATER, TURNS MILKY.

AS CARBON DIOXIDE.

L CHANGE, THE TOTAL AMOUNT OF MATTER REMAINS UNCHANGED.

NARY CHEMICAL REACTION MATTER IS NEITHER LOST OR GAINED.

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0205150003        GAIN AN UNDERSTANDING OF CHEMICAL PROPERTIES AND INFER

0205150004        KNOW THAT CHEMICAL PROPERTIES HELP IN IDENTIFYING A

0205150005        KNOW THAT WORD EQUATIONS HELP TO DESCRIBE A CHEMICAL

0205150006        ESTABLISH THE CHEMICAL TEST FOR DISTINGUISHING ACIDS,

0205150007        DISCOVER THAT LITMUS PAPER IS A CHEMICAL INDICATOR.

0205150008        IDENTIFY SODA AS NEUTRAL, LIMEWATER AS BASIC, LEMON

0205150009        BY DEMONSTRATION CHOOSE WHAT KIND OF SOLUTION CAUSES

0205150010        DEMONSTRATE CHANGING COLOR OF LITMUS PAPER;  PLACE
                  PLACE AMMONIA ON PINK AND BLUE LITMUS.  PINK TURNS BLUE.
0205150011        DEMONSTRATE TEST FOR ACIDS AND BASES.  PLACE SODA,
                  CHANGE BLUE, LIMEWATER TURNS PINK TO BLUE, LEMON TURN
0205150012        KNOW THAT CHEMICAL REACTIONS ARE A DEPENDABLE MEANS OF

0205150013        EXPERIENCE SOME TECHNIQUES A CHEMIST USES IN IDENTIFYING

0205150014        GAIN NEW AND DEEPER UNDERSTANDING OF THE CHEMIST'S 100

0205150015        KNOW THAT NO ATOMS ARE GAINED OR LOST IN A CHEMICAL

0205150016        KNOW THAT IN CHEMICAL CHANGE, MATTER IS NOT DESTROYED,
AL PROPERTIES AND INFER   THE EXISTENCE OF MOLECULES.

ELP IN IDENTIFYING A      SUBSTANCE.

O DESCRIBE A CHEMICAL     REACTION.

 DISTINGUISHING ACIDS,    BASES, AND NEUTRAL SUBSTANCES.

 CHEMICAL INDICATOR.

ATER AS BASIC, LEMON      JUICE AS ACIDIC.

ND OF SOLUTION CAUSES     PINK LITMUS TO TURN PINK.

ITMUS PAPER;  PLACE       VINEGAR ON PINK AND BLUE LITMUS.  BLUE TURNS PINK;
LITMUS.  PINK TURNS BLUE.

BASES.  PLACE SODA,       LIMEWATER, LEMON JUICE ON RED, BLUE LITMUS.  SODA WON'T
NK TO BLUE, LEMON TURN    BLUE TO PINK.

E A DEPENDABLE MEANS OF   TESTING THE PRESENCE OF A SUBSTANCE.

EMIST USES IN IDENTIFYING UNKNOWN SUBSTANCES.

NG OF THE CHEMIST'S 100   BUILDING BLOCKS.

R LOST IN A CHEMICAL      CHANGE.

ATTER IS NOT DESTROYED,   ONLY CHANGED FROM ONE FORM TO ANOTHER.
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0205150017      GIVEN A CHEMICAL CHANGE, SUGGEST VARIABLES THAT COULD   AFFECT

0205150018      GIVEN DESCRIPTION OF A PHYSICAL OR CHEMICAL CHANGE,     PREDICT
                CHANGE.

0205150019      GIVEN A SERIES OF SITUATIONS IN WHICH CHANGE HAS TAKEN  PLACE, D
                CHANGES.

0205150020      WHEN PERFORMING AN EXPERIMENT, RECOGNIZE AND RECORD     SIGNS OF

0205150021      CONSTRUCT GAS GENERATOR FROM PAPER MILK CARTON SO THAT  SIDES AR

0205150022      DESCRIBE EGGSHELL AND WHITE SUBSTANCE AS CALCIUM        CARBONAT




0205155         ENERGY TRANSFORMATION (COMBUSTION)

0205155001      DEVELOP INSIGHT INTO COMBUSTION AS ANALOGOUS TO CERTAIN KINDS OF



0205160         ENERGY TRANSFORMATION (COMPOUNDS)

0205160001      CHOOSE THE TYPE OF COMPOUNDS FOUND IN THE GREATEST      NUMBER

0205160002      KNOW THAT COMPOUNDS CAN BE BROKEN DOWN INTO THE ELEMENTS OF WHICH

0205160003      KNOW THAT COMPOUNDS MAY BE GROUPED BY THEIR CHEMICAL    PROPERTI

0205160004      DEMONSTRATE THE BREAKING DOWN OF A COMPOUND INTO ITS    ELEMENTS
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ABLES THAT COULD AFFECT THE CHANGE.

EMICAL CHANGE, PREDICT EFFECT OF A GIVEN MANIPULATED VARIABLE ON THAT

CHANGE HAS TAKEN PLACE, DESCRIBE THE PHYSICAL CHANGES AND THE CHEMICAL

IZE AND RECORD SIGNS OF CHEMICAL CHANGE.

LK CARTON SO THAT SIDES ARE FLEXIBLE AND CAN BE SQUEEZED.

AS CALCIUM CARBONATE.

ALOGOUS TO CERTAIN KINDS OF OXIDATION---FAST OR SLOW.

THE GREATEST NUMBER IN THE EARTH'S CRUST.

N INTO THE ELEMENTS OF WHICH THEY ARE COMPOSED.

THEIR CHEMICAL PROPERTIES.

MPOUND INTO ITS ELEMENTS USING MERCURIC OXIDE.

0205190	ENERGY TRANSFORMATION (ELEMENTS)
0205190001	KNOW THAT COMPOUNDS ARE BUILT UP FROM ELEMENTS.
0205190002	KNOW THAT ALL MATTER IS MADE UP OF ELEMENTS. ALL MATTER IS MADE U PARTICLES.
0205190003	CHOOSE THE CORRECT NUMBER OF ELEMENTS IN A MULTIPLE CHOICE QU
0205210	ENERGY TRANSFORMATION (HEAT)
0205210001	KNOW THAT HEAT IS ONE FORM OF ENERGY THAT CAUSES MOTION OF MOLECU
0205210002	READ A THERMOMETER TO THE NEAREST DEGREE IN EITHER FAHRENHEI
0205210003	DEMONSTRATE THE BOILING POINTS OF VARIOUS WATER SOLUTIONS
0205210004	IDENTIFY THE BOILING AND FREEZING POINTS OF WATER ON BOTH THE
0205210005	DESCRIBE HOW HEAT AFFECTS THE AMOUNT OF SOLID SUBSTANCE THAT WILL
0205210006	GIVEN TWO STATES OF MATTER, EXPLAIN WHAT OCCURS WHEN HEAT IS A TO THE MOLECULES BETWEEN THE FIRST AND SECOND STATE AND GIVE THE
0205210007	GIVEN A SUBSTANCE, DESCRIBE EFFECT THAT HEAT HAS ON THE VOLUME OF ACTION OR MOTION.
0205245	ENERGY TRANSFORMATION (MOLECULAR)
0205245001	KNOW THAT A MOLECULE IS THE SMALLEST PARTICLE OF A SUBSTANCE
0205245002	DEMONSTRATE HOW MOLECULES OF PERFUME CAN PASS THROUGH RUBBER BA PUSH IN CLEAN JAR FOR 15 MINUTES. ODOR IS IN JAR.

OM ELEMENTS.

LEMENTS. ALL MATTER IS MADE UP OF ATOMS. ALL MATTER IS MADE UP OF

S IN A MULTIPLE CHOICE QUESTION.

THAT CAUSES MOTION OF MOLECULES---AND OF GROUPS OF MOLECULES.

GREE IN EITHER FAHRENHEIT SCALE OR THE CENTIGRADE SCALE.

RIOUS WATER SOLUTIONS.

INTS OF WATER ON BOTH THE FAHRENHEIT SCALE AND THE CENTIGRADE SCALE.

OF SOLID SUBSTANCE THAT WILL DISSOLVE IN WATER.

WHAT OCCURS WHEN HEAT IS ADDED OR TAKEN AWAY. EXPLAIN WHAT HAS HAPPENED
ND SECOND STATE AND GIVE THE NAME OF THE PROCESS.

HAT HEAT HAS ON THE VOLUME OF SUBSTANCE AND ON THE SPEED OF THE MOLECULAR

PARTICLE OF A SUBSTANCE WHICH RETAINS THE PROPERTIES OF THE SUBSTANCE.

CAN PASS THROUGH RUBBER BALLOON. PLACE DROPS IN BALLOON, INFLATE, SEAL,
DOR IS IN JAR.

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0205245003     DEMONSTRATE FORMATION OF CRYSTALS.  DISSOLVE 2/3 CUP OF  SUGAR IN 1/4
               ALLOW LIQUID TO COOL.  CRYSTALS FORM ON BOLT.

0205245004     CONSTRUCT MODEL OF DRY ICE ROCKET ENGINE;  USE PINT MILK CARTON, THREA

0205245005     DEMONSTRATE MILK CARTON ENGINE:  IT REVOLVES AS DRY ICE  CONTACTS WATE
               THROUGH HOLE IN ONE DIRECTION.  CARTON REVOLVES IN       ANOTHER DIREC




0205255        ENERGY TRANSFORMATION (OXIDATION)

0205255001     KNOW THAT OTHER METALS COMBINE WITH OXYGEN TO FORM       OXIDES;  OXID
               COMPOSITION.

0205255002     KNOW THAT RUSTING CAN BE PREVENTED BY KEEPING OXYGEN AND IRON ATOMS FR

0205255003     KNOW THAT RUSTING MAY BE HASTENED BY RAPID RELEASE OF    OXYGEN IN A C

0205255004     DEMONSTRATE FORMATION OF RUST.  COLLECT OXYGEN AFTER     PLACING AN IR
               SECOND.  ALLOW TUBES TO SET TIL RUST FORMS.

0205255005     DESCRIBE RUST THAT FORMS AS A CHEMICAL COMPOUND, IRON    OXIDE.

0205255006     KNOW THAT THE PRODUCTION OF CARBON DIOXIDE IS EVIDENCE   OF OXIDATION

0205255007     INVESTIGATE OXIDATION IN SEVERAL EXAMPLES OF LIVING      THINGS.

0205255008     KNOW THAT OXYGEN IS AN ACTIVE ELEMENT;  IT COMBINES      READILY WITH
               COMPOUNDS.

0205255009     KNOW THAT IN OXIDATION, MATTER IS NEITHER GAINED NOR     LOST.
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S. DISSOLVE 2/3 CUP OF SUGAR IN 1/4 CUP BOILING WATER. SUSPEND BOLT IN LIQUID;
FORM ON BOLT.

T ENGINE; USE PINT MILK CARTON, THREAD, TOOTHPICK, CLAY, WATER, DRY ICE.

IT REVOLVES AS DRY ICE CONTACTS WATER. PRODUCES CARBON DIOXIDE. IT ESCAPES
CARTON REVOLVES IN ANOTHER DIRECTION.

ITH OXYGEN TO FORM OXIDES; OXIDES CAN BE IDENTIFIED BY THEIR CHEMICAL

ED BY KEEPING OXYGEN AND IRON ATOMS FROM COMBINING.

D BY RAPID RELEASE OF OXYGEN IN A CHEMICAL REACTION.

COLLECT OXYGEN AFTER PLACING AN IRON NAIL IN ONE TEST TUBE, STEEL WOOL IN
RUST FORMS.

EMICAL COMPOUND, IRON OXIDE.

ON DIOXIDE IS EVIDENCE OF OXIDATION WITHIN LIVING THINGS.

EXAMPLES OF LIVING THINGS.

EMENT; IT COMBINES READILY WITH MANY OTHER ELEMENTS TO FORM MANY OXYGEN

S NEITHER GAINED NOR LOST.

0205260	ENERGY TRANSFORMATION (OXYGEN)
0205260001	CONSTRUCT OXYGEN GAS GENERATOR. USE PLASTIC TUBING, FLASK, CLAY- BUBBLES OF OXYGEN PASS THROUGH WATER. WATER DISPLACED FROM TUBE.
0205260002	DEMONSTRATE USE OF APPARATUS TO COLLECT OXYGEN.
0205270	ENERGY TRANSFORMATION (SOLAR)
0205270001	KNOW THAT THE STORED ENERGY OF THE SUN IS TRANSFORMED INTO OTHER K ON THE PAST AS WELL AS ON THE PRESENT.
0205285	ENERGY TRANSFORMATION (WATER)
0205285001	DEMONSTRATE FORCE OF ICE. FILL PLASTIC CONTAINER WITH WATER, TAP O OPEN.
0205290	EROSION
0205290001	KNOW THAT WEATHERING AND EROSION BREAK DOWN THE HARDEST ROCK.
0205290002	KNOW THAT PLANTS ARE AGENTS OR EROSION.
0205290003	KNOW THAT WIND AND WATER ARE AGENTS OF EROSION.
0205290004	KNOW THAT WEATHERING AND EROSION HELP BUILD UP NEW LAND.
0205290005	KNOW THAT THE ACTION OF WATER SORTS OUT SOIL PARTICLES, WHICH SETTLE ROCKS.
0205290006	EXPLAIN THE DIFFERENCE BETWEEN WEATHERING AND EROSION AND GIVE EXA THE EARTH.

SE PLASTIC TUBING, FLASK, CLAY- 3 PER CENT HYDROGEN PEROXIDE, YEAST.
ER. WATER DISPLACED FROM TUBE.

LLECT OXYGEN.

SUN IS TRANSFORMED INTO OTHER KINDS OF ENERGY; MAN'S ENVIRONMENT DEPENDS
ENT.

ASTIC CONTAINER WITH WATER, TAP ON LID, FREEZE WATER. LID WILL BE FORCED

REAK DOWN THE HARDEST ROCK.

SION.

TS OF EROSION.

HELP BUILD UP NEW LAND.

TS OUT SOIL PARTICLES, WHICH SETTLE IN LAYERS AND EVENTUALLY FORM SEDIMENTARY

ATHERING AND EROSION AND GIVE EXAMPLES OF HOW EACH BREAK DOWN AND BUILD UP

0205295	FISH
0205295001	CONSTRUCT AN AQUARIUM SYSTEM BY ESTABLISHING A TANK CONTAINING WA
0205295002	DEMONSTRATE THAT TEMPERATURE OF WATER CHANGES LESS RAPIDLY THAN MEASURE CHANGES IN AIR AND WATER DURING ENVIRONMENTAL TEMPERATURE C
0205295003	OBSERVE A FISH AND EXPLAIN HOW ITS STRUCTURE ADAPTS IT TO ITS ENVIRO
0205295004	DESCRIBE ADAPTATIONS OF FISH FOR LIFE ACTIVITIES AS MOVEMENT, GET BY OBSERVING FISH IN AN AQUARIUM AND BY READING REFERENCES.
0205300	FORCE AND MOTION
0205300001	KNOW THAT PRESSURE CAUSES MATTER TO MOVE.
0205300002	KNOW THAT ENERGY MUST BE SUPPLIED TO DEVELOP A FORCE SUFFICIENT TO
0205300003	THROUGH INVESTIGATION, DEDUCE THAT ENERGY IS NECESSARY TO SUPPLY A F IS AN UNBALANCED FORCE.
0205300004	FROM OBSERVATION, REASON THAT ENERGY OF MOTION (AN UNBALANCED FO TO CREATE THRUST.
0205300005	FROM OBSERVATION OF AN EXPERIMENT, RECOGNIZE PROOF WHICH SHOWS THAT TO (WEIGHT) AN EQUAL AMOUNT OF FORCE IS NEEDED.
0205300006	DESCRIBE SPRING BALANCE AS A FORCE OF GRAVITATION METER AND READING F
0205300007	DEMONSTRATE FORCE OF GRAVITY EXERTS PULL ON OBJECT. SUSPEND OBJEC
0205300008	INFER THAT EVERY ACTION HAS AN OPPOSITE AND EQUAL REACTION.
0205300009	DEMONSTRATE PRINCIPLE THAT EVERY ACTION HAS AN EQUAL AND OPPOSITE REAC

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ESTABLISHING A TANK      CONTAINING WATER, SAND, PLANTS, AND FISH.

WATER CHANGES LESS       RAPIDLY THAN TEMPERATURE OF AIR BY USING THERMOMETERS TO
 DURING ENVIRONMENTAL    TEMPERATURE CHANGES.

TS STRUCTURE ADAPTS IT   TO ITS ENVIRONMENT.

 LIFE ACTIVITIES AS      MOVEMENT, GETTING FOOD, GETTING AIR, AND REPRODUCTION,
 AND BY READING          REFERENCES.



 TO MOVE.

D TO DEVELOP A FORCE     SUFFICIENT TO OVERCOME GRAVITATIONAL PULL.

AT ENERGY IS NECESSARY   TO SUPPLY A FORCE THAT STARTS AN OBJECT MOVING.  THIS

ERGY OF MOTION (AN       UNBALANCED FORCE) REACTS AGAINST THE GRAVITATIONAL PULL

T, RECOGNIZE PROOF WHICH SHOWS THAT TO ACT AGAINST CERTAIN GRAVITATIONAL FORCE
E IS NEEDED.
CE OF GRAVITATION METER  AND READING FOR EACH OBJECT AS MEASURE OF PULL.

ERTS PULL ON OBJECT.     SUSPEND OBJECTS FROM SPRING BALANCES.  POINTER MOVES.

PPOSITE AND EQUAL        REACTION.

 ACTION HAS AN EQUAL AND OPPOSITE REACTION.
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0205300010     DESCRIBE ABOVE ACTION AS EXAMPLE OF NEWTON'S LAW OF      ACTIO

0205300011     USE THE LAW OF ACTION AND REACTION BY RESPONDING TO      GIVEN

0205300012     GAIN INSIGHT INTO INERTIA OF REST AND INERTIA OF MOTION  BY EX

0205300013     INFER THAT OBJECTS IN MOTION TEND TO MOVE IN A STRAIGHT  LINE
               SPACECRAFT INTO ORBIT AROUND THE EARTH.

0205300014     KNOW THAT ENERGY MUST BE APPLIED TO PRODUCE AN           UNBAL
               MOTION.

0205300015     MATCH WORDS AND PHRASES WITH THEIR DEFINITION PERTAINING TO MO

0205300016     IDENTIFY ACCEPTABLE DEFINITIONS FOR THE TERMS FORCE,     INERT

0205300017     RECOGNIZE EXAMPLES OF INERTIA SHOWN IN EXPERIMENTS.

0205300018     USE THE LAW OF INERTIA IN AN EXPLANATION OF A SITUATION  USING

0205300019     KNOW THAT ALL OBJECTS ATTRACT ONE ANOTHER BY THE FORCE   OF GR

0205300020     KNOW THAT AN OBJECT AT REST REMAINS AT REST AND AN       OBJEC
               UNBALANCED FORCE.

0205300021     KNOW THAT MOTION IS A FORM OF CHANGE.

0205300022     IDENTIFY VARIABLES WHICH AFFECT THE SWING OF A PENDULUM  AND T
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AMPLE OF NEWTON'S LAW OF ACTION AND REACTION.

EACTION BY RESPONDING TO GIVEN QUESTIONS.

F REST AND INERTIA OF MOTION BY EXAMINING FAMILIAR OBJECTS.

N TEND TO MOVE IN A STRAIGHT LINE BUT THAT SOME FORCE (GRAVITATIONAL) PULLS A
D THE EARTH.

PLIED TO PRODUCE AN UNBALANCED FORCE, RESULTING IN MOTION OR CHANGE OF

H THEIR DEFINITION PERTAINING TO MOTION OR THE CHANGE IN MOTION.

IONS FOR THE TERMS FORCE, INERTIA, AND WEIGHT.

IA SHOWN IN EXPERIMENTS.

N EXPLANATION OF A SITUATION USING BOOKS AND BICYCLES.

CT ONE ANOTHER BY THE FORCE OF GRAVITATION.

REMAINS AT REST AND AN OBJECT IN MOTION REMAINS IN MOTION UNLESS ACTED ON BY AN

OF CHANGE.

FECT THE SWING OF A PENDULUM AND TELL HOW THE SWING IS AFFECTED BY THESE VARIABLES.

0205310	GENETICS
0205310001	STUDY AND RESEARCH THE PART THAT CHROMOSOMES PLAY IN CHANGES IN
0205310002	KNOW THAT THE PATTERN OF THE ORGANISM IS PASSED ALONG TO NEW CELLS CONTENT.
0205310003	CONCEPTUALIZE CHROMOSOME PAIRING BY MAKING AND MANIPULATI
0205315	GEOLOGY
0205315001	CONSTRUCT MODEL OF EARTH. FILL BALLOON WITH TOOTHPASTE; FORM MODEL
0205315002	IDENTIFY PARTS OF MODEL TO REPRESENT LAYERS OF EARTH AS CRUST, MAN
0205315003	DEMONSTRATE HOW LAYERS OF SEDIMENT FORMED. MIX WATER, PEBBLES, G PARTICLES ACCUMULATE NEAR BOTTOM.
0205315004	DESCRIBE THIS ACTIVITY AS A MODEL OF HOW LAYERS OF SEDIMENT F
0205315005	KNOW THAT THE EARTH IS CONTINUALLY CHANGING.
0205315006	LEARN ABOUT EARTH'S INTERIOR BY MAKING A DIAGRAMMATIC MODEL.
0205315007	RELATE THE EARTH'S STRUCTURE TO A THREE DIMENSIONAL MODEL.
0205315008	KNOW THAT HEAT AND PRESSURE GENERATED WITHIN THE EARTH RESULT IN
0205315009	KNOW THAT BREAKING UP OF RADIOACTIVE ATOMS WITHIN THE EARTH RELE PRESSURE.
0205315010	KNOW THAT PRESSURES ON AND WITHING THE EARTH UPLIFT THE EARTH'S CR

T CHROMOSOMES PLAY IN CHANGES IN THE STRUCTURE OF LIVING THINGS.

GANISM IS PASSED ALONG TO NEW CELLS BY DUPLICATION OF CHROMOSOMES AND THEIR DNA

G BY MAKING AND MANIPULATING MODELS.

BALLOON WITH TOOTHPASTE; FORM MODELING CLAY AROUND BALLOON.

ESENT LAYERS OF EARTH AS CRUST, MANTLE, CORE.

ENT FORMED. MIX WATER, PEBBLES, GRAVEL, SAND AND ALLOW TO SETTLE; HEAVY
M.

EL OF HOW LAYERS OF SEDIMENT FORM IN OCEANS.

LLY CHANGING.

MAKING A DIAGRAMMATIC MODEL.

A THREE DIMENSIONAL MODEL.

ERATED WITHIN THE EARTH RESULT IN CHANGES OF ITS SURFACE.

CTIVE ATOMS WITHIN THE EARTH RELEASES ENORMOUS HEAT, CREATING TREMENDOUS

ING THE EARTH UPLIFT THE EARTH'S CRUST.

0205315011	RELATE INSIDE AND OUTSIDE PRESSURES TO MOUNTAIN	BUILDING.
0205315012	RELATE PRESSURES TO THE BENDING OF ROCK LAYERS.	
0205315013	DISCOVER THAT ROCKS MAY BE GROUPED BY THEIR ORIGIN.	
0205315014	KNOW THAT THE COMPOSITION OF THE EARTH'S ROCKS IS	DETERMINE
0205315015	KNOW THAT ROCKS MAY BE IDENTIFIED BY THEIR MINERAL	COMPOSITI
0205315016	MAKE A ROCK COLLECTION NAMEING AND CLASSIFYING EACH	ROCK.
0205315017	DEMONSTRATE THE HARDNESS OF VARIOUS MINERALS BY USING	A SCALE F
0205315018	CONSTRUCT A SCALE OF RELATIVE HARDNESS FROM SEVERAL	MINERALS.
0205315019	RELATE OIL DEPOSITS TO SEDIMENTATION IN ANCIENT TIMES.	
0205315020	DO INDEPENDENT RESEARCH ON HOW THE STORED ENERGY FROM PAST IMPORTANT TO THE PRESENT.	THE SUN IS
0205320	HUMAN BODY (BEHAVIOR)	
0205320001	GIVEN A SIMPLE GRAPH ON WHICH A SERIES OF TEST SCORES BETWEEN TESTS.	HAS BEEN P
0205320002	GIVEN LIST OF ORDINARY, EVERYDAY ACTS PERFORMED BY THOSE THAT ARE LEARNED AND THOSE THAT ARE UNLEARNED	ANIMALS AN (REFLEX).
0205320003	GIVEN SEVERAL WAYS OF IMPROVING A LEARNED BEHAVIOR, PROGRESS IN GIVEN PERIOD OF TIME, AND CHOOSE REASON WHY	RECOGNIZE YOUR CHOIC

RESSURES TO MOUNTAIN BUILDING.

DING OF ROCK LAYERS.

GROUPED BY THEIR ORIGIN.

F THE EARTH'S ROCKS IS DETERMINED BY THE MANNER IN WHICH THEY WERE FORMED.

TIFIED BY THEIR MINERAL COMPOSITION.

ING AND CLASSIFYING EACH ROCK.

VARIOUS MINERALS BY USING A SCALE FOR MEASURING HARDNESS.

VE HARDNESS FROM SEVERAL MINERALS.

MENTATION IN ANCIENT TIMES.

HOW THE STORED ENERGY FROM THE SUN IS TRANSFORMED INTO COAL AND OIL, MAKING THE
NT.

CH A SERIES OF TEST SCORES HAS BEEN PLOTTED, EXPLAIN THE REASONS THE SCORES CHANGED

RYDAY ACTS PERFORMED BY ANIMALS AND HUMAN BEINGS, RECOGNIZE DIFFERENCE BETWEEN
THOSE THAT ARE UNLEARNED (REFLEX).

VING A LEARNED BEHAVIOR, RECOGNIZE ONE WHICH WOULD HELP YOU SHOW THE MOST
TIME, AND CHOOSE REASON WHY YOUR CHOICE IS A GOOD ONE.

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0205320004      DEMONSTRATE DIFFERENCE (DISCRIMINATE) BETWEEN A STIMULUS AND A RESPO

0205320005      DEMONSTRATE IN A GIVEN EXPERIMENT INVOLVING STIMULUS AND RESPONSE IN
                CONTROLLED AND THE ONES THAT ARE CHANGED.

0205320006      RECOGNIZE FROM GROUPS OF WORDS OR NUMBERS ONE GROUP      WHICH WOULD
                REASON WHY GROUP YOU SELECTED IS EASIEST TO REMEMBER.

0205320007      GIVEN LIST OF THINGS WHICH ARE PRESENT IN A PLACE OF     STUDY, EXPL
                PREVENT LEARNING AND THOSE WHICH WILL PREVENT LEARNING.

0205320008      GIVEN AN EXPERIMENT ON PRACTICE AND MEMORIZATION,        RECOGNIZE T
                EXPERIMENT.

0205320009      GIVEN A LIST OF VARIABLES THAT WERE CONTROLLED IN AN     EXPERIMENT
                REASONS THEY WERE CONTROLLED.

0205320010      EXPLAIN WAYS IN WHICH A GIVEN VARIABLE WAS CONTROLLED    IN AN EXPER


0205320011      EXPLAIN WAYS IN WHICH A GIVEN VARIABLE WAS CONTROLLED IN AN EXPERIME


0205320012      EXPLAIN WHICH VARIABLES WERE CONTROLLED IN AN EXPERIMENT ON FORGETTI


0205320013      GIVEN DESCRIPTION OF LEARNING SITUATION, RECOGNIZE       THOSE VARIA
                LEARN AND THOSE VARIABLES THAT MIGHT BOTHER YOU OR SLOW  DOWN YOUR R

0205320014      GIVEN SEVERAL WAYS OF LEARNING, PREDICT WHICH YOU THINK  WOULD LEAD
                THROUGH EXPERIMENTAL PROCEDURES.

0205320015      GIVEN DIFFERENT FORMS OF GRAPHS SHOWING TEST SCORES,     EXPLAIN WHI
                INTERPRET WHAT THE SCORES MEAN.

0205320016      GIVEN DIFFERENT FORMS OF GRAPHS SHOWING TEST SCORES,     EXPLAIN WHI
                INTERPRET WHAT THE SCORES MEAN.
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RIMINATE) BETWEEN A STIMULUS AND A RESPONSE IN A GIVEN SITUATION.

MENT INVOLVING STIMULUS AND RESPONSE IN LIVING THINGS, THE VARIABLES THAT ARE
ARE CHANGED.

S OR NUMBERS ONE GROUP WHICH WOULD PROBABLY BE MOST EASILY MEMORIZED; EXPLAIN
IS EASIEST TO REMEMBER.

E PRESENT IN A PLACE OF STUDY, EXPLAIN DIFFERENCE BETWEEN THOSE WHICH WILL NOT
ICH WILL PREVENT LEARNING.

CE AND MEMORIZATION, RECOGNIZE THE VARIABLES THAT WERE CONTROLLED IN THE

T WERE CONTROLLED IN AN EXPERIMENT ON PRACTICE AND MEMORIZATION, EXPLAIN THE

VARIABLE WAS CONTROLLED IN AN EXPERIMENT ON PRACTICE AND MEMORIZATION.

VARIABLE WAS CONTROLLED IN AN EXPERIMENT ON PRACTICE AND MEMORIZATION.

CONTROLLED IN AN EXPERIMENT ON FORGETTING AND RELEARNING.

SITUATION, RECOGNIZE THOSE VARIABLES THAT MIGHT MAKE IT EASIER FOR YOU TO
T MIGHT BOTHER YOU OR SLOW DOWN YOUR RATE OF LEARNING.

G, PREDICT WHICH YOU THINK WOULD LEAD TO BEST RESULTS AND TEST YOUR PREDICTION
ES.

HS SHOWING TEST SCORES, EXPLAIN WHICH FORMS CAN BE COMPARED MOST EASILY AND
N.

HS SHOWING TEST SCORES, EXPLAIN WHICH FORMS CAN BE COMPARED MOST EASILY AND
N.

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0205325         HUMAN BODY (CIRCULATORY)

0205325001      KNOW THAT THE CIRCULATORY SYSTEM WORKS IN CONJUNCTION     WITH T
                THE CELLS WITH SUBSTANCES THEY NEED.


0205335         HUMAN BODY (DIET)

0205335001      KNOW THAT CERTAIN DISEASES ARE AVOIDED OR CURED BY        ADEQUA

0205335002      INFER THE IMPORTANCE OF HAVING A BALANCED DIET EVERY      DAY.

0205335003      REALIZE THE NEED FOR FOODS RICH IN CERTAIN SUBSTANCES.

0205335004      INFER THE NUTRITIONAL VALUES OF FOOD SUBSTANCES IN MILK.

0205335005      MAKE A POSTER SHOWING VITAMINS AND THEIR SOURCES.


0205340         HUMAN BODY (DIGESTIVE)

0205340001      KNOW THAT DIGESTION BEGINS AS FOOD IS BROKEN INTO         SMALLER

0205340002      KNOW THAT OUR DIGESTIVE ORGANS MAKE OUR FOOD READY TO     MOVE TH

0205340003      KNOW THAT THE ORGANS OF THE DIGESTIVE SYSTEM WORK         TOGETHE

0205340004      DESCRIBE THAT SUBSTANCE IN SALIVA IS RESPONSIBLE FOR      CHANGIN

0205340005      COMPLETE AN INVESTIGATION USING BENEDICTS SOLUTION TO     SHOW HO

0205340006      DEMONSTRATE HOW STARCH IS CHANGED TO SUGAR.  TEST AND     SHOW AB
                SOLUTION, SALIVA, PRESENCE IN STARCH AND SALIVA SOLUTION (SET FO
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STEM WORKS IN CONJUNCTION WITH THE DIGESTIVE AND RESPIRATORY SYSTEMS TO PROVIDE
EY NEED.

RE AVOIDED OR CURED BY ADEQUATE AMOUNTS OF VITAMINS,

NG A BALANCED DIET EVERY DAY.

ICH IN CERTAIN SUBSTANCES.

OF FOOD SUBSTANCES IN MILK.

NS AND THEIR SOURCES,

S FOOD IS BROKEN INTO SMALLER PARTICLES.

NS MAKE OUR FOOD READY TO MOVE THROUGH MEMBRANES.

DIGESTIVE SYSTEM WORK TOGETHER,

ALIVA IS RESPONSIBLE FOR CHANGING STARCH TO SUGAR,

ING BENEDICTS SOLUTION TO SHOW HOW SALIVA BREAKS DOWN STARCH.

ANGED TO SUGAR. TEST AND SHOW ABSENCE OF SUGAR WITH BENEDICTS SOLUTION IN STARCH
N STARCH AND SALIVA SOLUTION (SET FOR 10 MINUTES).

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0205340007       REPORT WRITTEN OR ORALLY WHAT HAPPENS TO FOOD IN THE      MOUTH, STO



0205390          HUMAN BODY (NERVOUS)

0205390001       KNOW THAT THE NERVOUS SYSTEM SERVES TO COORDINATE THE     SYSTEMS OF


0205410          HUMAN BODY (RESPIRATORY)

0205410001       THROUGH OBSERVATION, INFER THAT RATES OF BREATHING MAY    DIFFER.

0205410002       KNOW THAT THE AMOUNT OF AIR THAT CAN BE INHALED IS        DETERMINED

0205410003       READ A CHART TO DETERMINE DIFFERENCES IN INHALED AND      EXHALED AI

0205410004       DISTINGUISH RATE OF BREATHING FROM OTHERS.  COMPARE       RATES.

0205410005       DESCRIBE RATE OF BREATHING.  COUNT NUMBER OF TIMES HE     INHALES IN

0205410006       CONSTRUCT TABLE OF BREATHING RATES.  INDICATE NUMBER OF   CHILDREN A

0205410007       DEVISE AN INVESTIGATION TO HELP ANSWER THE FOLLOWING      QUESTION:

0205410008       DEVISE AN INVESTIGATION TO HELP ANSWER THE FOLLOWING      QUESTION:

0205410009       DEVISE AN INVESTIGATION TO HELP ANSWER THE FOLLOWING      QUESTION:
                 RATE OF BREATHING?

0205410010       KNOW THAT ALTHOUGH THE AMOUNT OF OXYGEN IN FRESH AIR      REMAINS AB
                 LESS.
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AT HAPPENS TO FOOD IN THE MOUTH, STOMACH, AND INTESTINES.

M SERVES TO COORDINATE THE SYSTEMS OF THE BODY.

THAT RATES OF BREATHING MAY DIFFER.

THAT CAN BE INHALED IS DETERMINED BY THE EXPANSION OF THE LUNGS.

IFFERENCES IN INHALED AND EXHALED AIR.

NG FROM OTHERS. COMPARE RATES.

COUNT NUMBER OF TIMES HE INHALES IN ONE MINUTE.

G RATES. INDICATE NUMBER OF CHILDREN AND DIFFERENT RATES.

HELP ANSWER THE FOLLOWING QUESTION: DOES EVERYONE INHALE AT THE SAME RATE?

HELP ANSWER THE FOLLOWING QUESTION: DOES EXERCISE AFFECT BREATHING RATE?

HELP ANSWER THE FOLLOWING QUESTION: CAN YOU DETERMINE AN AVERAGE OR NORM IN TH

NT OF OXYGEN IN FRESH AIR REMAINS ABOUT THE SAME, THE AMOUNT IN EXHALED AIR IS

0205410011	KNOW THAT THE ORGANS OF THE RESPIRATORY SYSTEM ARE SO STRUCTU CONTINUOUS SUPPLY OF OXYGEN.
0205415	HUMAN BODY (SKELETAL)
0205415001	KNOW THAT THE SKELETAL AND MUSCULAR SYSTEMS PROVIDE THE BODY SU
0205425	HUMAN BODY (SYSTEMS)
0205425001	VISUALIZE THE BODY AS MORE THAN A MASS OF CELLS---RATHER AS AN O
0205425002	KNOW THAT THE ORGAN SYSTEMS WORK TOGETHER IN PERFORMING THE BOD
0205425003	KNOW THAT THE EXCRETORY SYSTEM ENABLES THE OTHER SYSTEMS TO MAIN CELL OXIDATION.
0205430	HUMAN BODY (TEMPERATURE)
0205430001	CONSTRUCT A TABLE OF TEMPERATURE READINGS COLLECTED, INDICAT OUTDOORS AND INDOORS.
0205430002	DEMONSTRATE BODY'S ADAPTATION FOR STEADY TEMPERATURE BY MEASURI A WEEK SHOWING THAT BODY TEMPERATURE VARIES LITTLE COMPARE
0205430003	OBSERVE, INVESTIGATE, AND ANALYZE THE IMPORTANCE OF AN EVEN BO
0205450	INTERDEPENDENCE
0205450001	KNOW THAT ANIMALS ARE DEPENDENT ON THE OXYGEN GREEN PLANTS

RESPIRATORY SYSTEM ARE SO STRUCTURED THAT THEY PROVIDE THE BODY CELLS WITH A

USCULAR SYSTEMS PROVIDE THE BODY SUPPORT AND PROTECTION AND ENABLE IT TO MOVE ABOUT.

HAN A MASS OF CELLS---RATHER AS AN ORGANIZED STRUCTURE.

WORK TOGETHER IN PERFORMING THE BODY'S FUNCTIONS.

EM ENABLES THE OTHER SYSTEMS TO MAINTAIN A BALANCE BY REMOVING UNDESIRABLE WATES OF

TURE READINGS COLLECTED, INDICATING DAY OF READING AND AIR AND BODY TEMPERATURES,

N FOR STEADY TEMPERATURE BY MEASURING BODY AND AIR TEMPERATURES, IN- AND OUTDOOR FOR
PERATURE VARIES LITTLE COMPARED TO AIR TEMPERATURE.

ALYZE THE IMPORTANCE OF AN EVEN BODY TEMPERATURE.

ENT ON THE OXYGEN GREEN PLANTS GIVE OFF DURING PHOTOSYNTHESIS.

0205450002 GAIN INSIGHT INTO THE INTERDEPENDENCE OF ORGANISMS AND THIER ENV

0205450003 KNOW THAT LIVING THINGS OBTAIN FROM ONE ANOTHER AND FROM THE ENVIR
GROWTH AND ACTIVITY.

0205450004 REALIZE THAT ANIMALS AND PLANTS IN A SEALED ENVIRONMENT DEPEND UP
CYCLE IS ESSENTIAL IN THEIR ENVIRONMENT.

0205450005 CONSTRUCT A SEALED-IN MODEL USING FISH AND PLANT LIFE TO SHOW T
ABLE TO RELATE THIS MODEL TO THE SEALED-IN ENVIRONMENT OF THE EA

0205450006 KNOW THAT INTERDEPENDENCE OF LIVING THINGS WITH THEIR ENVIRONME
IN A CHEMICAL CHANGE.

0205450007 KNOW THAT WAYS OF LIFE TODAY ARE RELATED TO THE INTERDEPE
ENVIRONMENT.

0205450008 REASON FROM PRIOR WORK THAT ANIMAL FIBERS ARE DEPENDENT ON EARLIE

0205455 LIGHT

0205455001 DISCOVER HOW MIRRORS COLLECT LIGHT.

0205455002 KNOW THAT A TELESCOPE MIRROR SERVES TO COLLECT LIGHT.

0205455003 KNOW THAT LIGHT COLLECTED BY A CURVED MIRROR CAN BE BROUGHT T

0205455004 KNOW THAT LENSES AND PRISMS CAN CHANGE THE DIRECTION OF LIGHT.

0205455005 DEMONSTRATE THAT LIGHT WILL BOUNCE AT AN ANGLE OR STRAIGHT
DIFFERENT ANGLES ONTO A MIRROR.

0205455006 MAKE A WORKABLE MODEL OF A PERISCOPE.

ENDENCE OF ORGANISMS AND THIER ENVIRONMENTS.

FROM ONE ANOTHER AND FROM THE ENVIRONMENT THE MATTER AND ENERGY THEY NEED FOR

S IN A SEALED ENVIRONMENT DEPEND UPON ONE ANOTHER; THE OXYGEN-CARBON-DIOXIDE
VIRONMENT.

ING FISH AND PLANT LIFE TO SHOW THE INTERDEPENDENCE OF ALL LIVING THINGS, BEING
HE SEALED-IN ENVIRONMENT OF THE EARTH.

IVING THINGS WITH THEIR ENVIRONMENT IS RELATED TO THE TRANSFORMATION OF MATTER

RE RELATED TO THE INTERDEPENDENCE OF ORGANISMS THAT LIVED IN AN ANCIENT

IMAL FIBERS ARE DEPENDENT ON EARLIER CAPTURE OF ENERGY BY GREEN PLANTS.

IGHT.

ERVES TO COLLECT LIGHT.

CURVED MIRROR CAN BE BROUGHT TO A FOCUS AND MAGNIFIED BY A LENS.

N CHANGE THE DIRECTION OF LIGHT.

UNCE AT AN ANGLE OR STRAIGHT BACK TO THE SOURCE, BY SHINING A FLASHLIGHT AT
.

ISCOPE.

0205455007	KNOW THAT LIGHT TRAVELS IN STRAIGHT LINES. IT CAN BE BROKEN PRISM.
0205455008	DO AN INVESTIGATION WITH A PRISM TO SHOW THAT WHITE LIGHT THAT THE SPECTRUM HAS A SET PATTERN.
0205455009	NAME THE COLOR OF THE BANDS AS RED, ORANGE, YELLOW, GREEN,
0205455010	DEMONSTRATE THAT BANDS OF COLORED LIGHT ARE FORMED AS SUNLIG
0205455011	KNOW THAT LIGHT CAN BE REFLECTED BY MIRRORS.
0205455012	DISCOVER THAT LIGHT MOVES IN A STRAIGHT LINE.
0205455013	DEMONSTRATE USING A LONG TUBE THAT LIGHT TRAVELS IN A STRAIG
0205455014	KNOW THAT PARTS OF THE LIGHT SPECTRUM ARE INVISIBLE: THEIR
0205455015	UNDERSTAND THE SHORTNESS OF WAVELENGTHS OF LIGHT.
0205455016	WRITE OR DISCUSS THIS TOPIC, 'THE WAVE THEORY OF LIGHT,' THIS S WAVE LENGTHS.
0205455017	KNOW THAT THE BEHAVIOR OF LIGHT MAY BE EXPLAINED AS THE MOTION
0205455018	INFER THAT THE NUMBER OF WAVES IS RELATED TO THE LENGTH OF THE
0205455019	KNOW THAT LIGHT BEHAVES AT TIMES AS PARTICLES, AND AT TIMES
0205455020	EXAMINE AN EXAMPLE OF LIGHT BEHAVING AS PARTICLES RATHER THAN A

I STRAIGHT LINES. IT CAN BE BROKEN INTO A SPECTRUM OF COLORS AS IT PASSES THROUGH A

S PRISM TO SHOW THAT WHITE LIGHT IS MADE OF MANY DIFFERENT COLORS OF LIGHT, AND
T PATTERN.

B S AS RED, ORANGE, YELLOW, GREEN, BLUE, AND VIOLET, AND THE TOTAL PATTERN SPECTRUM.

T COLORED LIGHT ARE FORMED AS SUNLIGHT PASSES THROUGH A GLASS PRISM.

LECTED BY MIRRORS.

IN A STRAIGHT LINE.

T UBE THAT LIGHT TRAVELS IN A STRAIGHT LINE.

X HT SPECTRUM ARE INVISIBLE; THEIR EXISTENCE CAN BE INFERRED FROM THEIR EFFECTS.

F WAVELENGTHS OF LIGHT.

O C, 'THE WAVE THEORY OF LIGHT,' THIS SHOULD INCLUDE THE KNOWLEDGE OF COLORS RELATED TO

O LIGHT MAY BE EXPLAINED AS THE MOTION OF WAVES THROUGH SPACE.

W AVES IS RELATED TO THE LENGTH OF THE WAVE.

S TIMES AS PARTICLES, AND AT TIMES AS WAVES.

T BEHAVING AS PARTICLES RATHER THAN AS WAVES (ELECTRICAL ENERGY).

0205455021 WRITE OR DISCUSS THIS TOPIC, 'THE PARTICLE THEORY OF LIGHT.'

0205455022 RELATE WAVELENGTH TO THE COLOR SPECTRUM.

0205455023 COMPARE THE TWO THEORIES OF LIGHT AND BECOME AWARE THAT MORE EVIDE

0205455024 GIVEN TWO PIECES OF EVIDENCE, A AND B, DECIDE WHICH THEORY OF

0205455025 KNOW THAT THE LIGHT FROM THE STARS ENABLES US TO DETERMINE

0205455026 DEDUCE THAT DIFFERENT ELEMENTS PRODUCE DIFFERENT FLAME COLORS.

0205455027 INFER THAT LIGHT FROM THE STARS WAS EMITTED AT SOME TIME IN THE PAS

0205455028 KNOW THAT DISTANCES IN SPACE CAN BE MEASURED ACCURATELY BY USING T

0205455029 DESCRIBE THAT LIGHT WAVES OR RADIO WAVES CAN BE USED TO MEASURE DI
TAKES TO BOUNCE WAVES OFF A DISTANT OBJECT.

0205455030 FIGURE WHAT A LIGHT YEAR IS USING MATH CONCEPTS.

0205455031 RECOGNIZE IN MULTIPLE CHOICE SITUATION THE SPEED OF LIGHT.

0205455032 OBSERVE OR PERFORM AN INVESTIGATION OF A FLAME SHOWING COLORS PRO

0205455033 DEMONSTRATE FLAME TEST FOR IDENTIFYING CHEMICAL SUBSTANCES
OPEN FLAME CAUSING DIFFERENT COLORS TO BE FORMED AS THEY BURN.

, 'THE PARTICLE THEORY OF LIGHT.'

LOR SPECTRUM.

LIGHT AND BECOME AWARE THAT MORE EVIDENCE IS NEEDED.

E, A AND B, DECIDE WHICH THEORY OF LIGHT BEST EXPLAINS EACH.

E STARS ENABLES US TO DETERMINE THEIR COMPOSITION AND THEIR TEMPERATURE.

NTS PRODUCE DIFFERENT FLAME COLORS.

TARS WAS EMITTED AT SOME TIME IN THE PAST.

E CAN BE MEASURED ACCURATELY BY USING THE SPEED OF LIGHT AS A YARDSTICK.

R RADIO WAVES CAN BE USED TO MEASURE DISTANCES IN SPACE, BY MEASURING THE TIME IT
DISTANT OBJECT.

USING MATH CONCEPTS.

E SITUATION THE SPEED OF LIGHT.

TIGATION OF A FLAME SHOWING COLORS PRODUCED WHEN DIFFERENT SUBSTANCES ARE PRESENT.

IDENTIFYING CHEMICAL SUBSTANCES BY HOLDING DIFFERENT CHEMICAL POWDERS IN AN
T COLORS TO BE FORMED AS THEY BURN.

0205465	MACHINES (COMPLEX)
0205465001	COMPARE POWER MACHINES WITH MANUAL MACHINES TO SHOW ADVANTAGE
0205470	MACHINE (SIMPLE)
0205470001	COMBINING SEVERAL OF THE SIX SIMPLE MACHINES (INCLINED PLANE, SC DESIGN AND BUILD A WORKING MODEL.
0205475	MAMMALS
0205475001	KNOW THAT THE MAMMALS HAVE BEEN MORE SUCCESSFUL IN THEIR ADAPTATIO
0205475002	KNOW THAT MAMMALS ARE ADAPTED FOR THE PROTECTION AND CARE OF T
0205475003	UNDERSTAND THE IMPORTANT RELATIONSHIP BETWEEN CHANGES IN STRUCTURE CHANGES IN CHROMOSOMES.
0205480	MAGNETS
0205480001	GIVEN GROUP OF OBJECTS AND A MAGNET, PREDICT WHICH OF THE OBJEC TEST YOUR PREDICTIONS IN EXPERIMENTAL PROCEDURES.
0205480002	GIVEN A MAGNET AND GROUP OF MATERIALS (E.G., PAPER, CARDBOARD MATERIALS ARE MAGNETICALLY TRANSPARENT.
0205480003	GIVEN TWO MARKED BAR MAGNETS, RECOGNIZE THE POLES WHICH ATTRACT E
0205480004	GIVEN A MAGNET, DEMONSTRATE THE PATTERN OF ITS LINES OF FORCE.

TH MANUAL MACHINES TO SHOW ADVANTAGES OR DISADVANTAGES OF EACH.

SIX SIMPLE MACHINES (INCLINED PLANE, SCREW, WEDGE, LEVER, PULLEY, WHEEL, AND AXLE)
G MODEL.

E BEEN MORE SUCCESSFUL IN THEIR ADAPTATIONS THAN HAVE OTHER FORMS OF LIVING THINGS.

PTED FOR THE PROTECTION AND CARE OF THEIR YOUNG.

RELATIONSHIP BETWEEN CHANGES IN STRUCTURE AND FUNCTION OF THE BODY (ADAPTATION) AND

D A MAGNET, PREDICT WHICH OF THE OBJECTS ARE MAGNETIC AND WHICH ARE NONMAGNETIC.
EXPERIMENTAL PROCEDURES.

OF MATERIALS (E.G., PAPER, CARDBOARD, PLASTIC GLASS, TIN), DEMONSTRATE WHICH
Y TRANSPARENT.

ETS, RECOGNIZE THE POLES WHICH ATTRACT EACH OTHER AND THE POLES WHICH REPEL EACH OTHER.

ATE THE PATTERN OF ITS LINES OF FORCE.

0205485	MEALWORMS
0205485001	RECOGNIZE BODY PARTS OF A MEALWORM (ANTENNA, HEAD, MOUTH, LEG, T FUNCTIONS.
0205495	MICROORGANISMS
0205495001	PLAN FOR COLLECTING, CULTURING, AND STUDYING PROTOZOANS.
0205495002	KNOW THAT PROTOZOANS MOVE AND GATHER FOOD IN DIFFERENT WAYS.
0205495003	DESCRIBE MOVEMENT AND FEEDING OF LIFE IN DROP OF POND WATER. USE M
0205495004	DISTINGUISH BETWEEN LIFE FOUND IN DROP OF WATER AND IN WATER FROM SU
0205500	MICROSCOPE TECHNIQUE
0205500001	USE A COMPOUND MICROSCOPE BY SETTING UP AND FOCUSING IT FOR VIEWING A
0205500002	GIVEN A MICROSCOPE, A SLIDE, AND A SIMPLE SKETCH, LABEL SKETCH ACCORD RECORD THE MAGNIFICATION USED.
0205500003	GIVEN LIST OF DIRECTIONS, PREPARE A SLIDE FOR VIEWING FROM THE FOLL SLIP, A SPECIMEN (SUCH AS POND WATER).
0205500004	DEMONSTRATE HOW TO PLACE A COVER SLIP ON DROP OF WATER (POND) ON MIC
0205500005	DEMONSTRATE USE OF MICROSCOPE. PLACE IN FOCUS SLIDE PREPARED EARL
0205545	PLANTS (GROWTH)

MEALWORM (ANTENNA, HEAD, MOUTH, LEG, THORAX, ABDOMEN) AND DESCRIBE THEIR

RING, AND STUDYING PROTOZOANS.

AND GATHER FOOD IN DIFFERENT WAYS.

ING OF LIFE IN DROP OF POND WATER. USE MICROSCOPE.

OUND IN DROP OF WATER AND IN WATER FROM SURFACE OF POND MUD. USE MICROSCOPE.

BY SETTING UP AND FOCUSING IT FOR VIEWING AT A GIVEN POWER.

E, AND A SIMPLE SKETCH, LABEL SKETCH ACCORDING TO WHAT YOU OBSERVE ON THE SPECIMEN.
SED.

PREPARE A SLIDE FOR VIEWING FROM THE FOLLOWING MATERIALS: A GLASS SLIDE, A COVER
POND WATER).

COVER SLIP ON DROP OF WATER (POND) ON MICROSCOPE SLIDE. DO NOT TRAP AIR BUBBLES.

OPE. PLACE IN FOCUS SLIDE PREPARED EARLIER.

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0205545001     KNOW THAT DURING PHOTOSYNTHESIS (THE MANUFACTURE OF      CARBOH

0205545002     CONSTRUCT AN HYPOTHESIS CONCERNING THE REACTIONS IN A    PLANT

0205545003     OPERATIONALLY DEFINE PHOTOSYNTHESIS AND CHLOROPHYLL.

0205545004     KNOW THAT DURING PHOTOSYNTHESIS, GREEN PLANTS            MANUFA
               OF LIGHT.

0205545005     PERFORM AN INVESTIGATION SHOWING THE PRODUCTION OF       OXYGEN
               FOR THIS PROCESS.

0205545006     DISCOVER THAT MANY OF OUR FOODS COME FROM PLANTS CELLS   SPECIA

0205545007     KNOW THAT GREEN PLANTS MAKE CARBOHYDRATES FROM CARBON    DIOXID
               PLANTS FOR THEIR FOOD.

0205545008     KNOW THAT PLANTS MAKE AND STORE FATS.

0205545009     KNOW THAT PLANTS MAKE AND STORE PROTEINS.

0205545010     KNOW THAT GREEN PLANTS ARE A BASIC SOURCE FOR MANY       SUBSTAN

0205545011     LIST THE FOOD SUBSTANCE AND GASES PRODUCED DURING        PHOTOSY

0205545012     KNOW THAT PLANTS ARE A SOURCE OF FOOD SUBSTANCES THAT    KEEP US



0205550        PLANTS (HYBRIDS)

0205550001     GIVEN DUPLICATES OF SEEDS, PLANTS, OR FRUITS, TRY TO     IMPROVE
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HESIS (THE MANUFACTURE OF CARBOHYDRATES), GREEN PLANTS PRODUCE OXYGEN.

NCERNING THE REACTIONS IN A PLANT THAT MIGHT PRODUCE CARBOHYDRATES.

SYNTHESIS AND CHLOROPHYLL.

HESIS, GREEN PLANTS MANUFACTURE SIMPLE SUGARS AND STARCHES, USING THE ENERGY

HOWING THE PRODUCTION OF OXYGEN DURING PHOTOSYNTHESIS AND THE NECESSITY OF LIGHT

FOODS COME FROM PLANTS CELLS SPECIALIZED FOR STORAGE OF CARBOHYDRATES.

E CARBOHYDRATES FROM CARBON DIOXIDE AND WATER. ANIMALS ARE DEPENDENT ON GREEN

STORE FATS.

STORE PROTEINS.

A BASIC SOURCE FOR MANY SUBSTANCES NEEDED BY ALL ANIMAL LIFE.

D GASES PRODUCED DURING PHOTOSYNTHESIS.

RCE OF FOOD SUBSTANCES THAT KEEP US WELL.

PLANTS, OR FRUITS, TRY TO IMPROVE THE QUALITY BY SELECTION, GRAFTING, OR BUDDING.

0205560 PLANTS (NEEDS)

0205560001 KNOW THAT GREEN PLANTS CAN DIRECTLY TRAP AND STORE THE ENERGY O

0205560002 KNOW THAT LIGHT IS ESSENTIAL FOR THE MANUFACTURE OF CARBOHYD

0205560003 KNOW THAT THE CAPTURE OF RADIANT ENERGY BY GREEN PLANTS IS BASIC
THINGS.

0205560004 DESCRIBE THAT PRESENCE OF LIGHT NECESSARY FOR PHOTOSYN

0205560005 INFER THE SOURCES OF THE CARBON, OXYGEN, AND HYDROGEN A GREEN

0205560006 DEMONSTRATE STARCH ABSENT IN LEAF 1/2 COVERED FOR 3 DAYS, PRE
WITH HEATED ALCOHOL AND TEST WITH IODINE SOLUTION.

0205570 PLANTS (PARTS)

0205570001 CONSTRUCT 'RUBBING' OF LEAF. PLACE LEAF, FACE DOWN UNDER PAR

0205570002 DESCRIBE THAT LEAF SKELETON IS MADE OF CELLULOSE AND GIVES LE

0205610 REPRODUCTION

0205610001 KNOW THAT ORGANISMS REPRODUCE OTHER ORGANISMS LIKE THEMSELVE

0205615 REPTILES (EXTINCT)

0205615001 RESEARCH HOW CHANGES OF ENVIRONMENT AFFECTED DINOSAURS.

LY TRAP AND STORE THE ENERGY OF SUNLIGHT.

THE MANUFACTURE OF CARBOHYDRATES BY CELLS IN A GREEN LEAF.

ENERGY BY GREEN PLANTS IS BASIC TO THE GROWTH AND MAINTENANCE OF ALL LIVING

ECESSARY FOR PHOTOSYNTHESIS TO FORM STARCH IN GREEN PLANTS.

OXYGEN, AND HYDROGEN A GREEN PLANTS USES IN PHOTOSYNTHESIS.

1/2 COVERED FOR 3 DAYS, PRESENT IN UNCOVERED HALF. REMOVE CHLOROPHYLL
IODINE SOLUTION.

CE LEAF, FACE DOWN UNDER PAPER, RUB CRAYON OVER OUTLINE OF LEAF.

DE OF CELLULOSE AND GIVES LEAF STRENGTH AND STIFFNESS.

ER ORGANISMS LIKE THEMSELVES.

NT AFFECTED DINOSAURS.

0205615002	KNOW THAT FURTHER ADAPTATIONS LED TO DOMINANCE BY THE DINOSAURS; DISAPPEARANCE.
0205620	SCIENTIFIC METHOD
0205620001	APPRECIATE THE PROBLEMS THAT INTEREST A SCIENTIST AND SOME OF THE
0205620002	ASSOCIATE SCIENCE WITH EVIDENCE AND REASONING.
0205620003	DESIGN EXPERIMENT SHOWING RELATIONSHIP BETWEEN TIME IT TAKES FOR S TEMPERATURE. USE THESE STEPS: 1. HYPOTHESIS, 2. DESIGN, 3.
0205620004	EXAMINE INFERENCES ON WHICH A THEORY IS BUILT AND REALIZE THA
0205620005	IN RESPONSE TO A REQUEST TO DO SO, DESCRIBE DESIGNS THAT WOULD BE AP MODEL CAN BE USED TO EXPLAIN A GIVEN PHENOMENON.
0205620006	CONSTRUCT A DIAGRAM WITH LABELS TO DEMONSTRATE THAT MORE THAN O GIVEN MODEL.
0205630	SOLAR SYSTEM
0205630001	CONSTRUCT MODEL OF SUN-EARTH-MOON SYSTEM.
0205630002	GIVEN THE PROPERTIES OF THE PLANETS OF OUR SOLAR SYSTEM, ORDER AT LE OR NUMBER OF MOONS.
0205630003	GIVEN THE PROPERTIES OF THE PLANETS, COMPARE THE KNOWN PHYSICAL FE
0205630004	CONSTRUCT DIAGRAM OF ELLIPTICAL SHAPE OF EARTH'S ORBIT. USE PAPER, ACCORDING TO ARRANGEMENT IN TEXT.
0205630005	DEMONSTRATE MOVING THUMB TACKS FARTHER APART CAUSES MORE ELONGATED E CIRCLE.

TIONS LED TO DOMINANCE BY THE DINOSAURS; FAILURE TO ADAPT TO CHANGES LED TO THEIR

THAT INTEREST A SCIENTIST AND SOME OF THE METHODS HE USES IN TRYING TO SOLVE THEM.

VIDENCE AND REASONING.

G RELATIONSHIP BETWEEN TIME IT TAKES FOR SUBSTANCE TO DISSOLVE IN WATER AND
STEPS: 1. HYPOTHESIS, 2. DESIGN, 3. RECORD OF OBSERVATIONS, 4. CONCLUSIONS.

ICH A THEORY IS BUILT AND REALIZE THAT EVERY THEORY MUST BE TESTED BY EVIDENCE.

TO DO SO, DESCRIBE DESIGNS THAT WOULD BE APPROPRIATE TO ILLUSTRATE THAT MORE THAN ONE
LAIN A GIVEN PHENOMENON.

LABELS TO DEMONSTRATE THAT MORE THAN ONE MODEL CAN SOMETIMES BE USED TO EXPLAIN A

ARTH-MOON SYSTEM.

THE PLANETS OF OUR SOLAR SYSTEM, ORDER AT LEAST THREE PLANETS ACCORDING TO COLOR, SIZE,

THE PLANETS, COMPARE THE KNOWN PHYSICAL FEATURES OF TWO PLANETS.

IPTICAL SHAPE OF EARTH'S ORBIT. USE PAPER, PENCIL, RULER, 2 THUMB TACKS, STRING
IN TEXT.

TACKS FARTHER APART CAUSES MORE ELONGATED ELLIPSE; MOVE TOGETHER MAKES ORBIT MORE LIKE

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0205630006     CONSTRUCT HYPOTHESIS OF WHAT ELLIPSE WILL LOOK LIKE IF   THUMB TA

0205630007     DESCRIBE THAT TIME IS LEAST FOR EARTH TO ROTATE, MORE    FOR MOON
               REVOLVE AROUND SUN.

0205630008     KNOW THAT BODIES IN SPACE, AS WELL AS THEIR MATTER AND   ENERGY,

0205630009     KNOW THAT THE EARTH IS IN CONSTANT MOTION.

0205630010     KNOW THAT BODIES IN SPACE, AS WELL AS THEIR MATTER AND   ENERGY,

0205630011     KNOW THAT TO ALTER THE PATH OF A BODY IN SPACE, ENERGY   MUST BE
               GRAVITATIONAL PULL AND INERTIAL MOTION.

0205630012     KNOW THAT INERTIA AND GRAVITATION AFFECT THE PATH OF     BODIES T

0205630013     KNOW THAT THE MASSES OF THE SUN AND THE PLANETS DIFFER;  HENCE, T

0205630014     INFER THE NEWTON'S LAWS OF GRAVITATION AND MOTION HELP   EXPLAIN

0205630015     SENSE HOW SCIENTISTS AND ENGINEERS CAN PREDICT ORBITS.

0205630016     KNOW THAT THE POSITION AND MOTION OF THE MOON ARE        AFFECTED

0205630017     KNOW THAT EXPLORATION OF THE MOON DEPENDS UPON           UNDERSTA
               SPACE ARE AFFECTED BY GRAVITATION AND INERTIAL MOTION.

0205630018     KNOW THAT ROTATION AND REVOLUTION DIFFER FOR DIFFERENT   BODIES I

0205630019     SENSE SOME RELATIONSHIPS BETWEEN DISTANCES AND TIME IN   SPACE TR
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LIPSE WILL LOOK LIKE IF THUMB TACKS ARE MOVED CLOSER OR FARTHER.

EARTH TO ROTATE, MORE FOR MOON TO REVOLVE AROUND EARTH, GREATEST FOR EARTH TO

ELL AS THEIR MATTER AND ENERGY, ARE IN CONSTANT CHANGE.

ANT MOTION.

ELL AS THEIR MATTER AND ENERGY, ARE IN CONSTANT CHANGE.

A BODY IN SPACE, ENERGY MUST BE APPLIED TO AFFECT THE RELATIONSHIP BETWEEN
MOTION.

ON AFFECT THE PATH OF BODIES TRAVELING IN SPACE.

AND THE PLANETS DIFFER; HENCE, THEIR GRAVITATIONAL PULLS DIFFER.

ITATION AND MOTION HELP EXPLAIN THE ORIGIN OF THE SOLAR SYSTEM.

ERS CAN PREDICT ORBITS.

ON OF THE MOON ARE AFFECTED BY GRAVITATION AND INERTIAL MOTION.

ON DEPENDS UPON UNDERSTANDING HOW THE POSITION AND MOTION OF BODIES IN
ON AND INERTIAL MOTION.

ON DIFFER FOR DIFFERENT BODIES IN SPACE.

N DISTANCES AND TIME IN SPACE TRAVEL.

0205630020 DISCOVER THAT ENORMOUS DISTANCES IN SPACE REQUIRE A NEW UNIT OF

0205630021 REASON OUT A METHOD FOR MEASURING THE DISTANCE TO OBJECTS

0205630022 RELATE THEIR KNOWLEDGE OF THE LAWS OF MOTION TO A MOON LAUNCH

0205630023 KNOW THAT THE FLIGHT OF A SPACECRAFT TO THE MOON IS AFFECTE

0205630024 FIGURE HIS WEIGHT IF ONE COULD GET COMPLETELY AWAY FROM GRAVITA

0205630025 GIVE CORRECT ANSWERS ABOUT ONE'S MASS ON THE MOON.

0205630026 GIVE AN EXAMPLE OF HOW ONE WOULD FIGURE ONE'S WEIGHT ON THE MOO

0205635 SOLAR SYSTEM (STARS)

0205635001 BECOME AWARE OF THE ENORMOUS TEMPERATURES OF STARS.

0205635002 KNOW THAT THE STARS ARE CONTINUALLY CHANGING.

0205635003 EXPLAIN WHAT A SPECTROSCOPE TELLS US ABOUT THE TEMPERA

0205635004 DEMONSTRATE OR TELL HOW WE KNOW THAT THE STARS MOVE.

0205635005 DEMONSTRATE THAT A TELESCOPE MUST MOVE TO STAY POINTED AT THE
AT NORTH STAR WITH SHUTTER OPEN THREE HOURS CAUSING CURVED

NCES IN SPACE REQUIRE A NEW UNIT OF MEASUREMENT.

URING THE DISTANCE TO OBJECTS IN SPACE.

E LAWS OF MOTION TO A MOON LAUNCH AND LANDING.

ACECRAFT TO THE MOON IS AFFECTED BY GRAVITATION.

LD GET COMPLETELY AWAY FROM GRAVITATION.

NE'S MASS ON THE MOON.

OULD FIGURE ONE'S WEIGHT ON THE MOON.

TEMPERATURES OF STARS.

INUALLY CHANGING.

TELLS US ABOUT THE TEMPERATURE AND SUBSTANCES IN A STAR.

NOW THAT THE STARS MOVE.

MUST MOVE TO STAY POINTED AT THE SAME STAR BY USING CAMERA REMAINING MOTIONLESS
PEN THREE HOURS CAUSING CURVED TRACKS OF LIGHT ON FILM.

0205655	UNIVERSE
0205655001	KNOW THAT THE UNIVERSE IS IN CONSTANT CHANGE.
0205655002	KNOW THAT COMPONENT BODIES OF THE UNIVERSE ARE IN CONS
0205655003	GIVEN APPROPRIATE REFERENCE MATERIALS, MAKE AN OUTLINE OF
0205655004	REPORT IN ORAL OR WRITTEN FORM ON THIS TOPIC, 'A RULER FOR DEMONSTRATIONS OR DRAWINGS.
0205665	WEATHER
0205665001	WHEN PRESENTED WITH A LIST OF TERMS CONCERNING WEATHER, CORR TERMS RELATING TO WEATHER AND WEATHER CONDITIONS.
0205685	WEATHER (PREDICTION)
0205685001	CONSTRUCT A WEATHER CHART BASED ON THE DATA TAKEN FROM AN A WIND AT A GIVEN TIME.
0205685002	CONSTRUCT A WEATHER CHART BASED ON THE DATA TAKEN FROM A TIDE GIVEN TIME.
0205685003	CONSTRUCT A WEATHER CHART BASED ON THE DATA TAKEN FROM AN A
0205685004	FROM OBSERVATIONS AND WEATHER KNOWLEDGE, INTERPRET INFO

CONSTANT CHANGE.

F THE UNIVERSE ARE IN CONSTANT MOTION.

MATERIALS, MAKE AN OUTLINE OF THE MANY COMPONENT PARTS OF THE UNIVERSE.

RM ON THIS TOPIC, 'A RULER FOR THE UNIVERSE,' AND SUPPORT THE REPORT WITH

F TERMS CONCERNING WEATHER, CORRECTLY DEFINE IN WRITING TEN OUT OF FIFTEEN OF THESE
D WEATHER CONDITIONS.

SED ON THE DATA TAKEN FROM AN AEROVANE TO SHOW THE VELOCITY AND DIRECTIONS OF THE

SED ON THE DATA TAKEN FROM A TIDE GAUGE TO SHOW THE RISE AND FALL OF THE TIDES AT A

SED ON THE DATA TAKEN FROM AN ANENOMETER.

R KNOWLEDGE, INTERPRET INFORMATION SHOWN IN A TABLE OR A GRAPH.

0206010	ADAPTATION (BEHAVIOR)
0206010001	KNOW THAT A LIVING THING IS THE PRODUCT OF ITS HEREDITY AN
0206010002	KNOW THAT BEHAVIOR MAY BE INBORN AND INVOLUNTARY.
0206010003	KNOW THAT RESPONSES TO STIMULI MAY BE SIMPLE OR COMPLEX.
0206010004	KNOW THAT BEHAVIOR CONSISTS OF RESPONSES TO CHANGES (S
0206010005	KNOW THAT A RESPONSE MAY BE CHANGED BY SUBSTITUTING A NE STIMULUS.
0206010006	KNOW THAT HABITS AND LEARNING RESULT FROM INTERACTION OF
0206010007	THE CHILD WILL DEMONSTRATE A CONDITIONED REFLEX BY CON LIGHT, WHEN FED) UNTIL THE FISH RESPONDS WITHOUT FOOD.
0206015	ADAPTATION (DEFENSE)
0206015001	KNOW THAT ORGANISMS ARE STRUCTURALLY ADAPTED FOR DEFENSE AGA
0206025	ADAPTATION (HABITAT)
0206025001	KNOW THAT LIVING THINGS ARE ADAPTED BY STRUCTURE AND FUN
0206025002	KNOW THAT LIVING ORGANISMS HAVE STRUCTURES THAT ENABLE THE
0206025003	KNOW THAT AN ORGANISM'S SPECIALIZED STRUCTURES ENABLE IT TO
0206025004	KNOW THAT HEREDITY AND ENVIRONMENT WORK TOGETHER.

DUCT OF ITS HEREDITY AND ENVIRONMENT.

D INVOLUNTARY.

BE SIMPLE OR COMPLEX.

ONSES TO CHANGES (STIMULI) IN THE ENVIRONMENT.

BY SUBSTITUTING A NEW STIMULUS AND ASSOCIATING IT WITH THE ORIGINAL

T FROM INTERACTION OF INHERITED STRUCTURES WITH STIMULI.

IONED REFLEX BY CONDITIONING A FISH TO RESPOND TO A STIMULUS (SUCH AS A
SPONDS WITHOUT FOOD.

Y ADAPTED FOR DEFENSE AGAINST HOSTILE MICROORGANISMS IN THEIR ENVIRONMENT.

D BY STRUCTURE AND FUNCTION TO THEIR ENVIRONMENT.

RUCTURES THAT ENABLE THEM TO RESPOND TO STIMULI IN THEIR ENVIRONMENT.

D STRUCTURES ENABLE IT TO INTERACT WITH THE ENVIRONMENT.

WORK TOGETHER.

0206025005	KNOW THAT THE ENVIRONMENT FOR GROWTH OF VIRUSES DIFFERS FROM THA
0206030	ADAPTATION (MAN)
0206030001	KNOW THAT CHEMICAL TECHNOLOGY HAS PROVIDED MANY SUBSTANC
0206030002	KNOW THAT MAN CHANGES THE ENVIRONMENT OF VIRUSES IN SEEKING
0206030003	KNOW THAT MAN ATTEMPTS TO MANAGE HIS ENVIRONMENT.
0206030004	INFER THAT THE CONQUEST OF DISEASE IS A COOPERATIVE EFFORT.
0206030005	KNOW THAT MODERN TECHNOLOGY USES CONCEPTS OF SCIENCE TO FREE THE
0206030006	KNOW THAT MAN CHANGES THE ENVIRONMENT OF MICROORGANISMS AS HE SE
0206090	CLASSIFY (MATTER)
0206090001	KNOW THAT THERE ARE HIDDEN LIKENESSES IN MATTER.
0206090002	KNOW THAT MATTER CAN UNDERGO CHANGE.
0206090003	GIVEN A LIST OF EARLY THEORIES ON MATTER, MATCH EACH THEORY W BOYLE, DEMOCRITUS, AND EMPEDOCLES).
0206090004	CLASSIFY COMMON SUBSTANCES AS ELEMENTS OR COMPOUNDS WHEN GIV
0206090005	CLASSIFY SUBSTANCES (E.G., SUGAR, SALT, GLASS) AS CRYSTALL OR DRAWING OF THE MOLECULAR ARRANGEMENTS.

OR GROWTH OF VIRUSES DIFFERS FROM THAT OF OTHER LIVING THINGS.

Y HAS PROVIDED MANY SUBSTANCES WITH USEFUL PROPERTIES.

VIRONMENT OF VIRUSES IN SEEKING TO CONQUER DISEASE.

NAGE HIS ENVIRONMENT.

ISEASE IS A COOPERATIVE EFFORT.

USES CONCEPTS OF SCIENCE TO FREE THE ENVIRONMENT OF HARMFUL MICROORGANISMS.

VIRONMENT OF MICROORGANISMS AS HE SEEKS TO CONQUER DISEASE.

IKENESSES IN MATTER.

CHANGE.

ES ON MATTER, MATCH EACH THEORY WITH THE SCIENTIST WHO FURTHERED IT (DALTON,
OCLES).

S ELEMENTS OR COMPOUNDS WHEN GIVEN SYMBOLS, FORMULAS, OR MODELS.

UGAR, SALT, GLASS) AS CRYSTALLINE OR NONCRYSTALLINE WHEN GIVEN A DESCRIPTION
ARRANGEMENTS.

0206110	CLOTH
0206110001	KNOW THAT SILK FIBERS ARE MADE BY A LIVING ANIMAL.
0206110002	KNOW THAT KNOWLEDGE OF MOLECULAR STRUCTURE ENABLES MAN TO INVE
0206110003	KNOW THAT FIBERS ARE MADE OF COMMON ELEMENTS.
0206110004	KNOW THAT ATOMS CAN BE REARRANGED IN MOLECULES TO FORM FIBERS
0206120	ELECTRICITY
0206120001	APPLY INFORMATION ON THE STRUCTURE OF THE ATOM IN EXPLAIN
0206120002	EXPLAIN HOW THE PROCESSES OF 'INDUCTION' AND 'ELECTRON TRANSFE
0206120003	EXPLAIN HOW ATTRACTION AND REPULSION BETWEEN CHARGED OBJECTS ON THE OBJECTS.
0206120004	DESCRIBE VARIABLES THAT AFFECT EXPERIMENTS ON STATIC ELECTRI
0206120005	DESCRIBE SOME VARIABLES THAT AFFECT EXPERIMENTS ON STATIC
0206120006	KNOW THAT FRICTION MAY TRANSFER ELECTRONS, GIVING OBJECTS
0206120007	THE CHILD WILL DEMONSTRATE A FORCE OF ATTRACTION BY RUBBING OF TISSUE PAPER TO CLING TO THE ROD.
0206120008	KNOW THAT STATIC ELECTRICITY IS STORED ENERGY; CURRENT ELECTRI
0206120009	KNOW THAT METALS ARE GOOD CONDUCTORS.

MADE BY A LIVING ANIMAL.

ECULAR STRUCTURE ENABLES MAN TO INVENT NEW FIBERS WITH IMPROVED PROPERTIES.

OF COMMON ELEMENTS.

RRANGED IN MOLECULES TO FORM FIBERS WITH SPECIAL PROPERTIES.

RUCTURE OF THE ATOM IN EXPLAINING STATIC ELECTRICITY.

OF 'INDUCTION' AND 'ELECTRON TRANSFER' ARE USED TO DEVELOP STATIC CHARGES ON OBJECTS

REPULSION BETWEEN CHARGED OBJECTS ARE RELATED TO THE KINDS OF ELECTRICAL CHARGES

ECT EXPERIMENTS ON STATIC ELECTRICTY AND EXPLAIN THE EFFECT.

T AFFECT EXPERIMENTS ON STATIC ELECTRICITY AND EXPLAIN THE EFFECT.

SFER ELECTRONS, GIVING OBJECTS AN ELECTRIC CHARGE.

A FORCE OF ATTRACTION BY RUBBING A PLASTIC ROD WITH A WOOL CLOTH, CAUSING PIECES
THE ROD.

Y IS STORED ENERGY; CURRENT ELECTRICITY IS KINETIC ENERGY.

ONDUCTORS.

0206120010	KNOW THAT ELECTRIC ENERGY CAN BE CHANGED INTO OTHER
0206120011	KNOW THAT THE ENERGY GOTTEN OUT OF MOVING ELECTRONS IS MOVE THROUGH A CIRCUIT.
0206120012	KNOW THAT A MAGNET MOVING IN A COIL OF WIRE INDUCES A CAN BE INCREASED.
0206120013	DEMONSTRATE EXISTANCE OF ELECTRIC CURRENT USING THE GALVANOMETER POINTER TO MOVE AS THE MAGNET IS MOVED
0206120014	DEMONSTRATE INCREASING THE CURRENT BY USING A STRONGER MORE WINDINGS IN THE COIL RATHER THAN FEWER WINDINGS.
0206120015	KNOW THAT A WIRE THROUGH WHICH ELECTRONS ARE FLOWING
0206120016	KNOW THAT A STRONGER MAGNET MAY BE MADE BY CONVERTING
0206120017	KNOW THAT THE ENERGY OF MOVING ELECTRONS CAN BE USED TO
0206120018	DEMONSTRATE SUBSTANCES VARY IN THEIR ABILITY TO CONDUCT CONDUCTIVITY OF VARIOUS METALS CAUSING A LAMP TO LIGHT.
0206120019	CONSTRUCT A CIRCUIT TESTER BY CONNECTING DRY CELL CAUSING THE LAMP TO LIGHT WHEN THE CIRCUIT IS COMPLETED.
0206120020	KNOW THAT MAGNETISM AND MECHANICAL ENERGY TOGETHER FLOW OF ELECTRONS CAN BE CONVERTED INTO A STEADY
0206120021	LOCATE AND IDENTIFY THE PARTS (CORE, COIL, SOURCE) OF AN ONE.
0206120022	DEMONSTRATE HOW STRENGTH OF MAGNETIC FIELD PRODUCED BY WIRE AROUND THE CORE.
0206120023	APPLY PRINCIPLES OF ELECTROMAGNETISM WHEN YOU MAKE A PEOPLE.

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N BE CHANGED INTO OTHER         KINDS OF ENERGY.

OUT OF MOVING ELECTRONS IS      NEVER GREATER THAN THE ENERGY PUT INTO MAKING ELECTRON

 A COIL OF WIRE INDUCES A       FLOW OF ELECTRONS IN THE WIRE;  THIS FLOW OF ELECTRONS

CTRIC CURRENT USING             GALVANMETER, COIL OF WIRE AND A STRONG MAGNET, CAUSING
MOVE AS THE MAGNET IS MOVED     THROUGH THE COIL.

URRENT BY USING A STRONGER      MAGNET, USING FASTER RATHER THAN SLOWER MOVEMENTS AND
THER THAN FEWER WINDINGS.

CH ELECTRONS ARE FLOWING        HAS A MAGNETIC FIELD.

MAY BE MADE BY CONVERTING       ELECTRIC ENERGY INTO A MAGNETIC FORCE.

NG ELECTRONS CAN BE USED TO     DO WORK.

IN THEIR ABILITY TO CONDUCT     ELECTRICITY, BY USING A CIRCUIT TESTER TO CHECK
LS CAUSING A LAMP TO LIGHT.

Y CONNECTING DRY CELL           TERMINALS, THREE PIECES OF WIRE AND A LAMP AND SOCKET
EN THE CIRCUIT IS COMPLETED.

ANICAL ENERGY TOGETHER          PROVIDE A STRONG AND STEADY FLOW OF ELECTRONS;  THIS
VERTED INTO A STEADY            FORCE TO DO WORK.

S (CORE, COIL, SOURCE) OF AN    ELECTROMAGNET WHEN GIVEN A DESCRIPTION OR DIAGRAM OF

MAGNETIC FIELD PRODUCED BY      AN ELECTROMAGNET IS AFFECTED BY THE NUMBER OF TURNS OF

AGNETISM WHEN YOU MAKE A        SIMPLE ELECTROMAGNET.  DEMONSTRATE ITS USE TO A GROUP O
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0206120024	KNOW THAT IN AN ELECTRIC BELL, ELECTRIC ENERGY DOES WORK IN MO
0206120025	CONSTRUCT ELECTRIC BELL. MAKE COIL OF 100 TURNS OF WIRE. VOLT DRY CELLS.
0206120026	DEMONSTRATE HOW TO CONNECT DRY CELLS AND WIRE TO ELECT
0206120027	DEMONSTRATE OPERATION OF ELECTRIC BELL. RING IT WHEN KNIFE
0206120028	NAME PARTS OF ELECTRIC BELL.
0206120029	DESCRIBE HOW AN ELECTRIC BELL WORKS BY OBSERVING MECHA OF CURRENT.
0206120030	KNOW THAT ELECTRIC ENERGY CAN BE CONVERTED TO SOUND ENERG
0206120031	MAKE WORKING MODEL OF TELEGRAPH. MAKE COIL AND KEY. USE W
0206120032	DEMONSTRATE OPERATION OF TELEGRAPH. SOUNDER MAKES CLICK
0206120033	MAKE WORKING MODEL OF TELEPHONE TRANSMITTER. USE SUGAR BOX, EARPHONE, AND FOUR 1.5 VOLT DRY CELLS.
0206120034	DEMONSTRATE OPERATION OF TELEPHONE TRANSMITTER. SPEAK INTO VOICE.
0206120035	DEMONSTRATE HOW TELEPHONE RECEIVER CHANGES ELECTRICITY TO SO CELL. IRON DISC VIBRATES AND MAKES SOUND WAVES.
0206120036	KNOW THAT AN ELECTRIC MOTOR TRANSFERS AND MULTIPLIES A FORCE
0206120037	MAKE WORKING MODEL OF ELECTRIC MOTOR. MAKE ARMATURE AND COILS VOLT DRY CELLS.

RIC BELL, ELECTRIC ENERGY DOES WORK IN MOVING AN OBJECT, THE CLAPPER, THROUGH A DISTANCE.

L. MAKE COIL OF 100 TURNS OF WIRE. USE CLAPPER, BELL, KNIFE, SWITCH, WOOD, 2 1.5-

NNECT DRY CELLS AND WIRE TO ELECTRIC BELL SO IT RINGS.

OF ELECTRIC BELL. RING IT WHEN KNIFE SWITCH CLOSED.

C BELL.

RIC BELL WORKS BY OBSERVING MECHANISM AT REST AND WHILE IT IS RINGING. DISCUSS FLO

RGY CAN BE CONVERTED TO SOUND ENERGY BY A MECHANICAL DEVICE.

TELEGRAPH. MAKE COIL AND KEY. USE WOOD ADD TWO 1.5 VOLT DRY CELLS.

OF TELEGRAPH. SOUNDER MAKES CLICKS AS KEY DEPRESSED.

TELEPHONE TRANSMITTER. USE SUGAR BOX, ALUMINUM STRIPS, PAPER CLIPS, WIRE, PENICL LEADS,
VOLT DRY CELLS.

OF TELEPHONE TRANSMITTER. SPEAK INTO BOX. VIBRATIONS CARRY CURRENT-WITH PATTERN-LIKE

ONE RECEIVER CHANGES ELECTRICITY TO SOUND. EXPOSE INSIDE OF RECIEVER, TOUCH WIRES TO DR
TES AND MAKES SOUND WAVES.

MOTOR TRANSFERS AND MULTIPLIES A FORCE.

ELECTRIC MOTOR. MAKE ARMATURE AND COILS OF WIRE. USE KNIFE, SWITCH, PEGBOARD, AND TWO 1.

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0206120038      DEMONSTRATE OPERATION OF ELECTRIC MOTOR.  ARMATURE SPINS WHEN KNIFE

0206120039      KNOW THAT OPENING AND CLOSING A SWITCH IN AN ELECTRIC   CIRCUIT CAN

0206120040      KNOW THAT SOUND WAVES MAY BE CONVERTED INTO VARYING     STRENGTHS
                CONDUCTOR, AND RECONVERTED INTO SOUND WAVES.

0206120041      KNOW THAT SOUND WAVES CAN BE CONVERTED INTO ELECTRICAL  ENERGY, TRA
                SOUND WAVES.

0206120042      KNOW THAT ELECTRIC ENERGY CAN BE CHANGED TO             ELECTROMAGN
                SPACE AT THE SPEED OF LIGHT.

0206120043      KNOW THAT WHENEVER ELECTRONS FLOW THROUGH A WIRE, THEY  SET UP A MA

0206120044      KNOW THAT ELECTRONS MOVING BACK AND FORTH GENERATE      ELECTROMAGN

0206120045      KNOW THAT ELECTROMAGNETIC WAVES CAN BE CHANGED TO       ELECTRIC EN

0206120046      KNOW THAT LIGHT ENERGY LIKE SOUND ENERGY, CAN BE        CONVERTED

0206120047      KNOW THAT ELECTROMAGNETIC WAVES CAN BE SEPARATED BY     THEIR FREQU

0206120048      KNOW THAT ELECTROMAGNETIC WAVES CAN ACTIVATE DEVICES IN SPACE TO GA
                SIGNALS TO EARTH.



0206125         ENERGY TRANSFORMATION

0206125001      KNOW THAT WHEN ENERGY CHANGES FROM ONE FORM TO ANOTHER, THE TOTAL

0206125002      KNOW THAT IN ALL MASS-ENERGY RELATIONSHIPS, THE SUM OF  THE AMOUNTS
                UNCHANGED.
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MOTOR. ARMATURE SPINS WHEN KNIFE SWITCH CLOSED.

WITCH IN AN ELECTRIC CIRCUIT CAN BE USED TO TRANSMIT SIGNALS.

ERTED INTO VARYING STRENGTHS OF ELECTRIC CURRENT, TRANSFERRED THROUGH A
OUND WAVES.

ERTED INTO ELECTRICAL ENERGY, TRANSMITTED OVER A CIRCUIT, AND RECONVERTED TO

CHANGED TO ELECTROMAGNETIC WAVES THAT CAN CARRY SIGNALS THROUGH

THROUGH A WIRE, THEY SET UP A MAGNETIC FIELD AROUND THE WIRE.

ND FORTH GENERATE ELECTROMAGNETIC WAVES.

AN BE CHANGED TO ELECTRIC ENERGY THAT CAN BE CONVERTED INTO SOUND WAVES.

ENERGY, CAN BE CONVERTED TO ELECTROMAGNETIC WAVES.

AN BE SEPARATED BY THEIR FREQUENCIES.

AN ACTIVATE DEVICES IN SPACE TO GATHER LIGHT AND SOUND AND TRANSMIT THEIR

M ONE FORM TO ANOTHER, THE TOTAL AMOUNT OF ENERGY REMAINS UNCHANGED.

TICNSHIPS, THE SUM OF THE AMOUNTS OF MATTER AND ENERGY INVOLVED REMAINS

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0206125003     GIVEN DESCRIPTION OF AN ENERGY CHANGE, EXPLAIN IF IT HAS BEEN A TRA
               ENERGY AND/OR NAME THE FORM OR STATE TO WHICH IT HAS     BEEN CHANG

0206125004     RECOGNIZE SITUATIONS IN WHICH WORK, AS A SCIENTIST       DEFINES IT




0206130        ENERGY TRANSFORMATION (AIR)

0206130001     DEMONSTRATE FASTER MOVING AIR HAS LOWER PRESSURE BY      BLOWING BE
               AN INVERTED FUNNEL CONTAINING A PING PONG CAUSING THE    BALL TO BE

0206130002     KNOW THAT AIR MOVING FASTER OVER THE UPPER SURFACE OF AN OBJECT DEV

0206130003     DEMONSTRATE:  KINETIC ENERGY INCREASES AND TEMPERATURE   RISES AS M
               TIRE.  PUMP GETS HOT NEAR BOTTOM.  USE FIRE SYRINGE TO   COMPRESS A


0206135        ENERGY TRANSFORMATION (ATOMS)

0206135001     EXPLAIN DIFFERENCE BETWEEN ATOMS AND MOLECULES WHEN      GIVEN A DI

0206135002     MAKE MODELS OF NEUTRAL ATOMS OF DIFFERENT ELEMENTS.

0206135003     NAME KINDS OF PARTICLES IN ATOM.

0206135004     RECOGNIZE RELATIONSHIP BETWEEN THE ATOMIC NUMBER OF AN   ELEMENT AN
               ELEMENT.

0206135005     DESCRIBE ATOMS.  MADE UP OF 3 KINDS OF PARTICLES,        OBSERVE 4
               PARTICLES, DIFFERENT NUMBERS.

0206135006     KNOW THAT ELECTRONS ARE EXTREMELY SMALL.

0206135007     KNOW THAT LOSS OR GAIN OF AN ELECTRON GIVES AN ATOM A    CHARGE.
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ANGE, EXPLAIN IF IT HAS BEEN A TRANSFORMATION IN THE FORM OR THE STATE OF THE
ATE TO WHICH IT HAS BEEN CHANGED.

K, AS A SCIENTIST DEFINES IT, IS DONE.

LOWER PRESSURE BY BLOWING BETWEEN TWO SUSPENDED APPLES AND BLOWING THROUG
ING PONG CAUSING THE BALL TO BE SUSPENDED INSIDE THE FUNNEL.

THE UPPER SURFACE OF AN OBJECT DEVELOPS A LIFTING FORCE.

EASES AND TEMPERATURE RISES AS MOLECULES OF GAS PRESS CLOSER. PUMP AIR INTO
USE FIRE SYRINGE TO COMPRESS AIR. AIR GETS HOT, IGNITES COTTON INSIDE.

AND MOLECULES WHEN GIVEN A DIAGRAM, DRAWING, OR DESCRIPTION OF EACH.

IFFERENT ELEMENTS.

E ATOMIC NUMBER OF AN ELEMENT AND THE NUMBER OF ELECTRONS IN THE ATOM OF THE

DS OF PARTICLES, OBSERVE 4 DIFFERENT MODELS OF ATOMS WITH SAME KINDS OF

SMALL.

TRON GIVES AN ATOM A CHARGE.

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0206135008      KNOW THAT THE BASIC ATOMIC PARTICLES ARE PROTONS WITH A  POSITIVE CHARG
                NEUTRONS WITH NO CHARGE.

0206135009      KNOW THAT EACH DIFFERENT ATOM CONSISTS OF PARTICLES      ARRANGED IN I

0206135010      KNOW THAT THE NUMBER OF PARTICLES IN AN ATOM DETERMINES  ITS STRUCTURE

0206135011      REINFORCE CONCEPT OF ATOMIC STRUCTURE BY MODELING        SEVERAL ATOMS

0206135012      KNOW THAT WHEN THE NUCLEUS OF THE ATOM CHANGES, ENERGY   IS RELEASED.

0206135013      KNOW THAT THE PARTS OF THE ATOM ARE TIGHTLY BOUND        TOGETHER;  CE

0206135014      KNOW THAT RADIOACTIVE (UNSTABLE) ATOMS EMIT PARTICLES    FROM THEIR NU

0206135015      KNOW THAT A CHANGE IN THE NUMBER OF PROTONS IN AN ATOM   CHANGES THE A

0206135016      KNOW THAT ENERGY MUST BE PUT IN TO INCREASE SPEED OF     NUCLEAR PARTI

0206135017      KNOW THAT ENERGY INPUT IS NEEDED TO RAISE THE ATOMIC     NUMBER.



0206140         ENERGY TRANSFORMATION (BURNING CANDLE)

0206140001      DEMONSTRATE WHEN A FUEL BURNS WATER IS FORMED, BY        PLACING A BUR
                GOES OUT AND WATER FORMS INSIDE JAR.


0206145         ENERGY TRANSFORMATION (CARBON DIOXIDE)

0206145001      DEMONSTRATE THAT CARBON DIOXIDE IS FORMED DURING THE     SAME ACTIVITY
                WITH LIMEWATER, CAUSING THE LIMEWATER TO TURN MILKY.
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TICLES ARE PROTONS WITH A POSITIVE CHARGE, ELECTRONS WITH A NEGATIVE CHARGE, AND

CONSISTS OF PARTICLES ARRANGED IN ITS OWN CHARACTERISTIC STRUCTURE.

LES IN AN ATOM DETERMINES ITS STRUCTURE AND ITS ATOMIC WEIGHT.

RUCTURE BY MODELING SEVERAL ATOMS.

THE ATOM CHANGES, ENERGY IS RELEASED.

M ARE TIGHTLY BOUND TOGETHER; CERTAIN PARTS ARE ELECTRICALLY CHARGED.

E) ATOMS EMIT PARTICLES FROM THEIR NUCLEUS; THESE PARTICLES HAVE ENERGY.

ER OF PROTONS IN AN ATOM CHANGES THE ATOM INTO THAT OF ANOTHER ELEMENT.

N TO INCREASE SPEED OF NUCLEAR PARTICLES.

ED TO RAISE THE ATOMIC NUMBER.

CANDLE)

WATER IS FORMED, BY PLACING A BURNING CANDLE IN A CLOSED JAR UNTIL THE FLAME
E JAR.

DIOXIDE)

E IS FORMED DURING THE SAME ACTIVITY, BY MISSING THE GAS TRAPPED IN THE JAR
MEWATER TO TURN MILKY.

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0206160          ENERGY TRANSFORMATION (COMPOUNDS)

0206160001       KNOW THAT ENERGY IS NEEDED TO SEPARATE METALS FROM THEIR COMPOUNDS.



0206165          ENERGY TRANSFORMATION (COMPOUNDS AND MIXTURES)

0206165001       FROM A GIVEN DEFINITION OR DESCRIPTION OF A SUBSTANCE,   RECOGNIZE SU



0206175          ENERGY TRANSFORMATION (COPPER OXIDE)

0206175001       THE CHILD WILL DEMONSTRATE THAT COPPER CAN BE OBTAINED   FROM COPPER
                 TONGS IN A BUNSEN BURNER, CAUSING SOME COPPER TO FORM ON THE TONGS.



0206185          ENERGY TRANSFORMATION (ELECTRIC)

0206185001       DEMONSTRATE SEPARATION OF COMPOUND WITH ELECTRIC CURRENT USING TWO 1-
                 STEEL SPOONS TO WIRE, PUT IN COPPER SULFATE SOLUTION.



0206190          ENERGY TRANSFORMATION (ELEMENTS)

0206190001       CLASSIFY COMMON SUBSTANCES AS ELEMENTS OR COMPOUNDS      WHEN GIVEN S

0206190002       APPLY INFORMATION OBTAINED FROM SIMPLE EXPERIMENTAL      TESTS TO IDE



0206205          ENERGY TRANSFORMATION (FORMS)

0206205001       EXPLAIN WHAT FORM OF ENERGY (CHEMICAL, MECHANICAL, HEAT, LIGHT, SOUND
                 (KINETIC OR POTENTIAL) DIFFERENT OBJECTS HAVE, USE, OR   PRODUCE THAT

0206205002       FROM LIST OF COMMON OBJECTS, RECOGNIZE THOSE WHICH ARE   IN A STATE O
                 WHICH ARE IN A STATE OF KINETIC ENERGY (ENERGY OF        MOTION).
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UNDS)

D SEPARATE METALS FROM THEIR COMPOUNDS.

UNDS AND MIXTURES)

ESCRIPTION OF A SUBSTANCE, RECOGNIZE SUBSTANCE AS EITHER A COMPOUND OR A MIXTURE.

R OXIDE)

HAT COPPER CAN BE OBTAINED FROM COPPER OXIDE, BY HEATING COPPER OXIDE POWDER ON
USING SOME COPPER TO FORM ON THE TONGS.

RIC)

MPOUND WITH ELECTRIC CURRENT USING TWO 1-1/2 VOLT DRY CELLS, ATTACH TWO STAINLESS
COPPER SULFATE SOLUTION.

NTS)

S ELEMENTS OR COMPOUNDS WHEN GIVEN SYMBOLS, FORMULAS, OR MODELS.

ROM SIMPLE EXPERIMENTAL TESTS TO IDENTIFY ELEMENTS.

)

(CHEMICAL, MECHANICAL, HEAT, LIGHT, SOUND, ELECTRICAL) AND/OR WHAT STATE OF ENERGY
RENT OBJECTS HAVE, USE, OR PRODUCE THAT MAKE IT POSSIBLE FOR THEM TO DO WORK.

RECOGNIZE THOSE WHICH ARE IN A STATE OF POTENTIAL ENERGY (STORED ENERGY) AND THOSE
TIC ENERGY (ENERGY OF MOTION).

0206210	ENERGY TRANSFORMATION (HEAT)
0206210001	KNOW THAT THE NATURE OF HEAT HAS ENABLED MAN TO DEVELOP WAYS TO
0206210002	KNOW THAT HEAT IS THE KINETIC ENERGY OF MOLECULES.
0206210003	KNOW THAT HEAT IS TRANSFERRED FROM ONE PLACE TO ANOTHER BY MOVIN
0206210004	KNOW THAT HEAT ENERGY IS TRANSFERRED FROM MOLECULE TO MOLECULE
0206210005	THE CHILD WILL DESCRIBE THAT THE VACUUM FLASK ACTS AS AN INSULAT HEAT.
0206210006	KNOW THAT A SUBSTANCE BECOMES COOLER AS A RESULT OF TRANSFER
0206210007	KNOW THAT HEAT GIVES GREATER KINETIC ENERGY TO MOLECULE
0206210008	TELL DIFFERENCE BETWEEN HEAT AND TEMPERATURE. DISCUSS HEAT IN AND TEMPERATURE AS MEANS OF MEASURING HOT AND COLD.
0206215	ENERGY TRANSFORMATION (INTERNAL COMBUSTION)
0206215001	GIVEN DRAWINGS SHOWING MOVEMENT OF AIR OR WATER MOLECULE PRODUCTION OF KINETIC ENERGY.
0206215002	GIVEN DESCRIPTION OF MACHINE ACTIVITIES THAT SHOW DIFFEREN ELECTRICAL), MATCH EACH MACHINE ACTIVITY WITH FORM OF ENERGY I
0206215003	GIVEN DESCRIPTION OF AN INTERNAL COMBUSTION ENGINE, RECOGNIZ MECHANICAL ENERGY IS BEING USED OR PRODUCED.
0206220	ENERGY TRANSFORMATION (KINETIC)
0206220001	KNOW THAT MOLECULES MAY BE GIVEN KINETIC ENERGY IN A CHEMICAL

HAS ENABLED MAN TO DEVELOP WAYS TO MODIFY AND CONTROL HIS ENVIRONMENT.

ENERGY OF MOLECULES.

FROM ONE PLACE TO ANOTHER BY MOVING MOLECULES.

SFERRED FROM MOLECULE TO MOLECULE; IT CANNOT BE TRANSFERRED IN A VACUUM.

THE VACUUM FLASK ACTS AS AN INSULATOR, WHICH SLOW DOWN OR PREVENTS THE TRAVEL OF

COOLER AS A RESULT OF TRANSFER OF ITS HEAT ENERGY.

KINETIC ENERGY TO MOLECULES.

AND TEMPERATURE. DISCUSS HEAT IN TERMS OF NUMBER AND SPEED OF MOLECULES IN MOTION
EASURING HOT AND COLD.

AL COMBUSTION)

NT OF AIR OR WATER MOLECULES, RECOGNIZE WHICH ILLUSTRATES THE GREATEST

ACTIVITIES THAT SHOW DIFFERENT FORMS OF ENERGY (CHEMICAL, MECHANICAL, OR
NE ACTIVITY WITH FORM OF ENERGY IT USES OR PRODUCES.

NAL COMBUSTION ENGINE, RECOGNIZE WHERE POTENTIAL, KINETIC, CHEMICAL, AND
ED OR PRODUCED.

C)

VEN KINETIC ENERGY IN A CHEMICAL CHANGE.

0206220002	KNOW THAT AN INCREASE IN KINETIC ENERGY CAN PRODUCE AN	UNBALANCE
0206220003	KNOW THAT ACTION AND REACTION, RESULTING FROM KINETIC FORCE.	ENERGY GI
0206220004	KNOW THAT ROCKETS AND JETS OPERATE ON THE SAME INTO FORCE.	PRINCIPLE
0206220005	KNOW THAT A TRANSFER OF ELECTRONS FROM ONE OBJECT TO ELECTRONS MOVE, THEY HAVE KINETIC ENERGY.	ANOTHER G
0206220006	DESCRIBE RESULTS OF KINETIC ENERGY ACTIVITY. DUE TO AS GAS IS COMPRESSED.	MOLECULES
0206225	ENERGY TRANSFORMATION (LIGHT AND SOUND)	
0206225001	KNOW THAT THE DIRECTION OF A MOVING OBJECT CAN BE	DETERMINE
0206230	ENERGY TRANSFORMATION (LIQUID)	
0206230001	DEMONSTRATE MOTION OF INK PARTICLES: ADD FEW DROPS OF WATER.	INK IN GL
0206230002	THE CHILD WILL DESCRIBE EXAMPLES OF BERNOULLI'S PRESSURE WITHIN THE FLUID.	DISCOVERY
0206235	ENERGY TRANSFORMATION (MASS)	
0206235001	TELL THE DIFFERENCE BETWEEN OPERATIONAL DEFINITIONS OF	WEIGHT AN
0206235002	DESCRIBE HOW MASS, VOLUME, AND DENSITY ARE RELATED WHEN	GIVEN INF

KINETIC ENERGY CAN PRODUCE AN UNBALANCED FORCE.

CTION, RESULTING FROM KINETIC ENERGY GIVEN TO MOLECULES CAN PRODUCE AN UNBALANCED

TS OPERATE ON THE SAME PRINCIPLE, BUT ROCKETS CONVERTS KINETIC ENERGY DIRECTLY

ELECTRONS FROM ONE OBJECT TO ANOTHER GIVES THEM POTENTIAL ENERGY; WHEN THE
E KINETIC ENERGY.

TIC ENERGY ACTIVITY. DUE TO MOLECULES BOUNCING OFF ONE ANOTHER WITH GREATER ENERGY

IGHT AND SOUND)

OF A MOVING OBJECT CAN BE DETERMINED BY WAVELENGTHS OF LIGHT OR SOUND.

IQUID)

K PARTICLES: ADD FEW DROPS OF INK IN GLASS OF WATER. INK WILL SPREAD THROUGHOUT

EXAMPLES OF BERNOULLI'S DISCOVERY THAT THE FASTER A FLUID MOVES THE LOWER THE
D.

ASS)

EEN OPERATIONAL DEFINITIONS OF WEIGHT AND OF MASS.

E, AND DENSITY ARE RELATED WHEN GIVEN INFORMATION ON MASS AND VOLUME OF VARIOUS OBJECTS.

0206245	ENERGY TRANSFORMATION (MOLECULAR)
0206245001	KNOW THAT WHEN A SUBSTANCE BECOMES WARMER, THE MOTION OF ITS MOLECUL
0206245002	KNOW THAT THE ENERGY OF MOVING MOLECULES OF AIR AND WATER PROVI
0206245003	KNOW THAT A CHANGE OF STATE INCREASES OR DECREASES THE KINETIC ENE
0206245004	DESCRIBE HOW KINETIC ENERGY IS USED WHEN BOILING WATER BLOWS THE C
0206245005	DEMONSTRATE MOVING MOLECULES DO WORK. PLACE WATER IN TEST TUBE, CAUSING CORK TO BE BLOWN OUT.
0206245006	DESCRIBE HYDROGEN GAS. COLLECT FROM WATER WITH HOFFMAN APPARATUS. LIGHTED MATCH BROUGHT TO MOUTH OF TUBE.
0206250	ENERGY TRANSFORMATION (NUCLEAR)
0206250001	KNOW THAT IN NUCLEAR REACTIONS, A LOSS OF MATTER IS A GAIN IN ENE REMAINS UNCHANGED.
0206250002	KNOW THAT ENERGY CAN BE RELEASED BY FISSION OF ATOMIC NUCLEI; TH
0206250003	KNOW THAT A CHAIN REACTION DEPENDS ON THE QUANTITY OF URANIUM WHI
0206250004	KNOW THAT NEUTRONS, WHEN TRAVELING AT THE RIGHT SPEED, CAUSE FISSI NUCLEI CONTROLS THE RATE OF FISSION.
0206250005	KNOW THAT NUCLEAR ENERGY CAN BE HARNESSED TO MACHINES TO DEVELOP OTH
0206250006	KNOW THAT NUCLEAR ENERGY PRODUCES GREAT FORCES.
0206250007	KNOW THAT NUCLEAR ENERGY HAS PRODUCED USEFUL ISOTOPES.

OMES WARMER, THE MOTION OF ITS MOLECULES INCREASES.

MOLECULES OF AIR AND WATER PROVIDE A FORCE THAT CAN BE HARNESSED TO DO WORK.

CREASES OR DECREASES THE KINETIC ENERGY OF MOLECULES OF MATTER.

USED WHEN BOILING WATER BLOWS THE CORK FROM THE TEST TUBE.

) WORK. PLACE WATER IN TEST TUBE, FIT GREASED CORK IN PLACE AND HEAT TO BOIL,

T FROM WATER WITH HOFFMAN APPARATUS. OBSERVE THAT GLASS EXPLODES WITH A POP WHEN
OF TUBE.

A LOSS OF MATTER IS A GAIN IN ENERGY; AND THE SUM OF THE MATTER AND ENERGY

ED BY FISSION OF ATOMIC NUCLEI; THE RATE OF FISSION CAN BE CONTROLLED.

ENDS ON THE QUANTITY OF URANIUM WHICH CAN UNDERGO FISSION.

LING AT THE RIGHT SPEED, CAUSE FISSION. THE NUMBER OF NEUTRONS CAPTURED BY
SSION.

E HARNESSED TO MACHINES TO DEVELOP OTHER FORMS OF ENERGY TO DO WORK.

CES GREAT FORCES.

RODUCED USEFUL ISOTOPES.

0206250008	KNOW THAT IN A NUCLEAR REACTION, MATTER LOST EQUALS ENERGY GA
0206250009	KNOW THAT IN NUCLEAR REACTIONS, THE NUCLEI OF ATOMS ARE DIVIDED (
0206250010	DEMONSTRATE USE OF GEIGER COUNTER. RECORD COUNTS ON GUAGE FROM
0206250011	MAKE MODEL OF NUCLEAR REACTOR.
0206250012	KNOW THAT IN A FUSION REACTION, SOME MATTER IS CONVERTED TO TREMEND
0206250013	KNOW THAT GREAT ENERGY STARTS A FUSION REACTION; GREAT ENERGY IS
0206250014	GIVEN DESCRIPTION OF AN ATOM BEFORE AND AFTER NUCLEAR PROCESS HA NATURAL RADIOACTIVE DECAY, ARTIFICIAL RADIOACTIVE DECAY (FISSION),
0206250015	IDENTIFY BENEFICIAL (E.G., TREATMENT OF CANCER) AND THE DETRIMENTA NUCLEAR ENERGY.
0206265	ENERGY TRANSFORMATION (PRESSURE)
0206265001	KNOW THAT DIFFERENCES IN PRESSURE RESULT IN A FORCE ACTING IN
0206265002	KNOW THAT A DIFFERENCE IN PRESSURE MAY RESULT IN MOTION.
0206265003	KNOW THAT AN INCREASE IN PRESSURE RAISES TEMPERATURE, AND A RISE
0206275	ENERGY TRANSFORMATION (SUBSTANCE)
0206275001	THE CHILD WILL DESCRIBE THE PRESENCE OF SUGAR IN THE TEST TUBE DIASTASE CHANGING STARCH TO SUGAR.

EACTION, MATTER LOST EQUALS ENERGY GAINED.

CTIONS, THE NUCLEI OF ATOMS ARE DIVIDED (FISSION) OR COMBINED (FUSION).

R COUNTER. RECORD COUNTS ON GUAGE FROM SOURCE, SUCH AS LUMINOUS CLOCK DIAL.

ACTOR.

ACTION, SOME MATTER IS CONVERTED TO TREMENDOUS ENERGY.

TARTS A FUSION REACTION; GREAT ENERGY IS RELEASED.

ATOM BEFORE AND AFTER NUCLEAR PROCESS HAS OCCURRED, EXPLAIN WHETHER ATOM WENT THROUGH
Y, ARTIFICIAL RADIOACTIVE DECAY (FISSION), OR FUSION.

, TREATMENT OF CANCER) AND THE DETRIMENTAL (E.G., RADIOACTIVE FALLOUT) ASPECTS OF

ESSURE)

PRESSURE RESULT IN A FORCE ACTING IN THE DIRECTION OF THE LOWER PRESSURE.

PRESSURE MAY RESULT IN MOTION.

PRESSURE RAISES TEMPERATURE, AND A RISE IN TEMPERATURE INCREASES PRESSURE.

BSTANCE)

HE PRESENCE OF SUGAR IN THE TEST TUBE WHICH TURNED YELLOW-ORANGE, DUE TO THE
TO SUGAR.

0206280	ENERGY TRANSFORMATION (VOLUME)
0206280001	USE FORMULA (L X W X H) FOR FINDING VOLUME OF A REGULAR SOLID (SUC UNIT OF VOLUME (CUBIC CENTIMETER).
0206285	ENERGY TRANSFORMATION (WATER)
0206285001	DEMONSTRATE THAT COLD WATER CAN GIVE MORE HEAT TO ICE THAN HOT W BOILING WATER TO ONE, COLD TO OTHER. COLD WATER MELTS ICE FASTER
0206285002	MAKE TABLE OF TEMPERATURES OF WATER AND TIME TO MELT ICE.
0206285003	DEMONSTRATE MOTION OF WATER MOLECULES. COLUMN OF WATER WILL MOVE FLASK WHEN FLASK IS WARMED BY HANDS.
0206285004	THE CHILD WILL DEMONSTRATE THAT A COLUMN OF WATER DOES NOT MOVE U THE GLASS FLASK.
0206285005	THE CHILD WILL DESCRIBE THAT THE WATER MOVES UP THE GLASS TUBE WATER IS WARMED.
0206295	FISH
0206295001	THE CHILD WILL CONSTRUCT A HYPOTHESIS ABOUT HOW LONG IT WILL TAKE STIMULUS.
0206300	FORCE AND MOTION
0206300001	GIVEN A SERIES OF EVERYDAY ACTIVITIES, RECOGNIZE THOSE WHICH ARE COMPLETING AN ACTION OR ACTIVITY.
0206300002	KNOW THAT WHEN EFFORT FORCE IS MULTIPLIED, DISTANCE IS LOST.
0206300003	KNOW THAT FRICTION INCREASES EFFORT THAT MUST BE APPLIED, A

INDING VOLUME OF A REGULAR SOLID (SUCH AS RECTANGULAR PRISM) USING BASIC METRIC
TER).

AN GIVE MORE HEAT TO ICE THAN HOT WATER. FILL TWO BEAKERS, WITH ICE, ADD 1/2 IN.
OTHER. COLD WATER MELTS ICE FASTER.

WATER AND TIME TO MELT ICE.

OLECULES. COLUMN OF WATER WILL MOVE UP GLASS TUBE INSERTED AND SEALED INTO GLASS
HANDS.

AT A COLUMN OF WATER DOES NOT MOVE UPWARD WHEN A VACUUM FLASK IS USED INSTEAD OF

THE WATER MOVES UP THE GLASS TUBE, DUE TO FASTER MOVING MOLECULES, WHEN THE

POTHESIS ABOUT HOW LONG IT WILL TAKE FOR THE FISH TO BE CONDITIONED TO THE NEW

TIVITIES, RECOGNIZE THOSE WHICH ARE DEPENDENT UPON THE GRAVITATIONAL FORCE FOR
ITY.

S MULTIPLIED, DISTANCE IS LOST.

EFFORT THAT MUST BE APPLIED, AND DECREASES SPEED (DISTANCE).

0206300004 KNOW THAT FRICTION IS A FORCE THAT RESISTS MOTION.

0206300005 KNOW THAT THE AMOUNT OF FRICTION DEPENDS UPON THE KINDS OF SURFA

0206300006 KNOW THAT THE LESS TWO SURFACES ARE IN CONTACT, THE LESS THE FRIC

0206300007 KNOW THAT FRICTION IS SOMETIMES USEFUL.

0206300008 KNOW THAT WORK IS DONE ONLY WHEN AN OBJECT IS MOVED THROUGH

0206300009 STATE THE RULE FOR WORK WHICH IS MULTIPLYING THE FORCE NEEDED B

0206300010 INFER RELATIONSHIPS AND DEVELOP AN EQUATION FOR WORK.

0206300011 KNOW THAT EVERY ACTION HAS AN EQUAL AND OPPOSITE REACTION

0206300012 KNOW THAT ACTION-REACTION CAN BE USED TO CHANGE SPEED OR DIREC

0206300013 USING NEWTON'S FIRST LAW OF MOTION, PREDICT WHAT WILL HAPPEN T
APPLIED TO THE OBJECTS.

0206300014 PREDICT WHICH OF SEVERAL OBJECTS WILL ACCELERATE MORE WHEN GIV
DIRECTION OF THE FORCE APPLIED.

0206300015 RECOGNIZE FACTORS THAT WILL AFFECT THE INERTIA OF AN OBJECT I

0206300016 PREDICT HOW THE FOLLOWING FACTORS AFFECT THE MOVEMENT OF OBJEC

RCE THAT RESISTS MOTION.

ICTION DEPENDS UPON THE KINDS OF SURFACES THAT ARE IN CONTACT.

FACES ARE IN CONTACT, THE LESS THE FRICTION BETWEEN THEM.

TIMES USEFUL.

Y WHEN AN OBJECT IS MOVED THROUGH A DISTANCE.

ICH IS MULTIPLYING THE FORCE NEEDED BY THE DISTANCE THE OBJECT IS MOVED.

VELOP AN EQUATION FOR WORK.

AN EQUAL AND OPPOSITE REACTION.

CAN BE USED TO CHANGE SPEED OR DIRECTION OF MOTION.

F MOTION, PREDICT WHAT WILL HAPPEN TO OBJECTS MOVING OR AT REST WHEN SOME FORCE IS

BJECTS WILL ACCELERATE MORE WHEN GIVEN THE MASS OF THE OBJECTS AND THE SIZE AND
LIED.

. AFFECT THE INERTIA OF AN OBJECT IN A GIVEN SITUATION,

FACTORS AFFECT THE MOVEMENT OF OBJECTS: FORCES, FRICTION, UNBALANCED FORCES,

0206310	GENETICS
0206310001	KNOW THAT THE CHARACTERISTICS OF A LIVING THING ARE LAID DOWN I
0206310002	KNOW THAT INHERITED TRAITS INTERACT WITH THE ENVIRON
0206310003	KNOW THAT THE CELLS IN THE OFFSPRING OF ONLY ONE PARENT WILL CA CELL NUCLEUS) DETERMINES FOR THE TRAITS OF THE PARENT.
0206310004	KNOW THAT A SEED PLANT IS THE PRODUCT OF A CELL CARRYING TRAITS
0206310005	KNOW THAT THE DNA MOLECULE CARRIES IN ITS PARTS (GENES) THE COD ORGANISM.
0206310006	KNOW THAT GENES CARRYING THE GENETIC CODE FOR A TRAIT MAY BE
0206310007	KNOW THAT THE GENETIC CODE IS CARRIED BY A LARGE MOLECUL
0206310008	KNOW THAT ORGANISMS CAN BE MAINTAINED GENETICALLY PURE FOR A G
0206310009	KNOW THAT A PURE TRAIT CAN BE KEPT PURE BY MAKING SURE THAT SE
0206310010	KNOW THAT SELECTING OF TRAITS CAN BE CONTROLLED BY SELECTI
0206310011	KNOW THAT DOMINANT AND RECESSIVE TRAITS CAN BE SORTED OUT BY
0206310012	KNOW THAT GENETIC TRAITS INTERACT IN MANY WAYS. THE RESULTI BLENDING.
0206310013	KNOW THAT WHEN TWO DIFFERENT GENES AFFECTING THE SAME TRAIT A ORGANISM IS A HYBRID.
0206310014	KNOW THAT THE VISIBLE APPEARANCE OF TRAITS MAY BE ALTERED

CS OF A LIVING THING ARE LAID DOWN IN A GENETIC CODE.

INTERACT WITH THE ENVIRONMENT.

OFFSPRING OF ONLY ONE PARENT WILL CARRY IN ITS CHROMOSOMES (TINY BODIES WITHIN THE
R THE TRAITS OF THE PARENT.

HE PRODUCT OF A CELL CARRYING TRAITS FROM TWO PARENTS.

CARRIES IN ITS PARTS (GENES) THE CODE THAT DETERMINES THE INHERITED TRAITS OF AN

E GENETIC CODE FOR A TRAIT MAY BE EITHER DOMINANT OR RECESSIVE.

IS CARRIED BY A LARGE MOLECULE IN THE CHROMOSOME.

MAINTAINED GENETICALLY PURE FOR A GIVEN TRAIT.

BE KEPT PURE BY MAKING SURE THAT SEEDS HAVE GENES FOR ONLY THE PURE TRAIT.

TS CAN BE CONTROLLED BY SELECTIVE POLLINATION.

SSIVE TRAITS CAN BE SORTED OUT BY CROSSING.

TERACT IN MANY WAYS. THE RESULTING EFFECT MAY BE DOMINANCE, RECESSIVENESS, OR

T GENES AFFECTING THE SAME TRAIT ARE IN THE CHROMOSOME (FOR THE DNA MOLECULE), THE

RANCE OF TRAITS MAY BE ALTERED, BUT THE TRAITS REMAIN UNCHANGED.

0206310015	KNOW THAT THE GENETIC CODE CAN CHANGE.
0206310016	KNOW THAT CHANGES IN THE GENETIC CODE PRODUCE CHANGES IN LIVING THI
0206310017	KNOW THAT OFFSPRING OF A SINGLE PARENT HAVE THE PARENT'S GENETIC CO
0206310018	KNOW THAT A MUTATION (A CHANGE IN THE GENE) IS PASSED ALONG IN
0206310019	KNOW THAT IMPROVED PLANTS AND ANIMALS ARE THE PRODUCT OF SELECTIVE
0206310020	KNOW THAT OFFSPRING OF TWO PARENTS INHERIT GENES FROM BOTH PAREN DEPENDS ON THE INTERACTION OF THE GENETIC CODE FROM BOTH PARENTS.
0206310021	KNOW THAT DESIRABLE MUTATIONS MAY BE ESTABLISHED BY CROSS-POLL
0206310022	KNOW THAT DESIRABLE MUTATIONS IN ANIMALS MAY BE ESTABLISHE

0206315 GEOLOGY

0206315001	KNOW THAT SUBSTANCES (MINERALS) IN THE EARTH'S CRUST CAN BE AL

0206320 HUMAN BODY (BEHAVIOR)

0206320001	KNOW THAT PAST EXPERIENCES PROVIDE INSIGHT INTO METHODS OF SOLVIN
0206320002	THE CHILD WILL DEMONSTRATE HOW INSIGHT DEVELOPS- AS HE TRIES TO MUCH WATER WILL BE DISPLACED.
0206320003	KNOW THAT HABITS ARE LEARNED ACTS THAT HAVE BECOME AUTOMATIC

CAN CHANGE.

ENETIC CODE PRODUCE CHANGES IN LIVING THINGS.

INGLE PARENT HAVE THE PARENT'S GENETIC CODE.

ANGE IN THE GENE) IS PASSED ALONG IN THE GENETIC CODE.

AND ANIMALS ARE THE PRODUCT OF SELECTIVE BREEDING FOR THE DESIRED TRAITS.

PARENTS INHERIT GENES FROM BOTH PARENTS. AN INCREASE IN THE NUMBER OF MUTANTS
OF THE GENETIC CODE FROM BOTH PARENTS.

ONS MAY BE ESTABLISHED BY CROSS-POLLINATION OF PLANTS HAVING THE DESIRED TRAITS.

ONS IN ANIMALS MAY BE ESTABLISHED BY SELECTIVE BREEDING.

RALS) IN THE EARTH'S CRUST CAN BE ALTERED TO PRODUCE NEW MATERIALS,

PROVIDE INSIGHT INTO METHODS OF SOLVING A PROBLEM AND ACHIEVING A GOAL.

HOW INSIGHT DEVELOPS- AS HE TRIES TO SOLVE A PROBLEM, USING A JAR- FOR DETERMING HOW
ED.

ED ACTS THAT HAVE BECOME AUTOMATIC.

0206320004	THE CHILD WILL CONSTRUCT A HYPOTHESIS, INDICATING WHETHER OR DECREASE SMOOTHLY WITH PRACTICE.
0206320005	DEMONSTRATE IMPORTANCE OF REGULAR PRACTICE: COMPARE RESULTS OF ANOTHER WHO HAS PRACTICED.
0206320006	THE CHILD WILL DEMONSTRATE THAT LEARNING CAN LEAD TO AN AUTOMATIC COMPLETE THE ACT TO DECREASE WITH PRACTICE.
0206320007	KNOW THAT DEVELOPMENT OF A HABIT REQUIRES PRACTICE.
0206320008	THE CHILD WILL DESCRIBE THAT REGULAR PRACTICE HELPS IN FORMING A
0206320009	KNOW THAT LEARNING IS IMPROVED BY THE DEVELOPMENT OF EFFICIENT
0206320010	KNOW THAT GOOD STUDY HABITS REQUIRE THE PROPER TOOLS, EQUIPMENT,
0206320011	KNOW THAT DEVELOPMENT OF A HABIT REQUIRES THE PROPER CONDITIONS
0206320012	INFER THAT DEVELOPMENT OF GOOD STUDY HABITS RESULTS IN MORE EFFIC
0206320013	THE CHILD WILL DESCRIBE THAT HE CANNOT PREVENT THIS REFLEX BY
0206335	HUMAN BODY (DIET)
0206335001	MATCH ESSENTIAL NUTRIENT WITH THE FOOD WHICH CAN PROVIDE MAJOR AMOUN
0206335002	KNOW THAT HARMFUL BACTERIA IN MILK ARE DESTROYED BY PASTEURIZA

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YPOTHESIS, INDICATING         WHETHER OR NOT THE TIME TO COMPLETE THE ACT WILL
ICE.

SULAR PRACTICE:  COMPARE      RESULTS OF WRITING NAME WITH OPPOSITE HAND AGAINST

HAT LEARNING CAN LEAD TO AN   AUTOMATIC ACT (TYING OF A BOW KNOT), CAUSING THE TIME T
 WITH PRACTICE.

ABIT REQUIRES PRACTICE.

 REGULAR PRACTICE HELPS IN    FORMING A NEW HABIT.

ED BY THE DEVELOPMENT OF      EFFICIENT HABITS OF STUDY.

REQUIRE THE PROPER TOOLS,     EQUIPMENT, AND SURROUNDINGS.

ABIT REQUIRES THE PROPER      CONDITIONS AND SURROUNDINGS.

OD STUDY HABITS RESULTS IN    MORE EFFICIENT LEARNING.

 HE CANNOT PREVENT THIS       REFLEX BY THINKING ABOUT IT.




H THE FOOD WHICH CAN PROVIDE MAJOR AMOUNT OF THAT NUTRIENT.

N MILK ARE DESTROYED BY       PASTEURIZATION.
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0206340 HUMAN BODY (DIGESTIVE)

0206340001 DEMONSTRATE ACTION OF ENZYME: MIX STARCH IN TWO TUBES, ADD DIASTAS
ONE TURNS YELLOW-ORANGE.

0206340002 DEMONSTRATE ACTION OF BACTERIA IN STOMACH-USING FOOD- GELATIN. A
ONE, WATER TO OTHER, DETERMINE GROWTH.

0206345 HUMAN BODY (DISEASE)

0206345001 KNOW THAT CERTAIN CELLS SECRETE SUBSTANCES THAT PROVIDE AN ENVIRONM

0206345002 INVESTIGATE THE FUNCTION OF EPITHELIAL CELLS THAT LINE THE BODY CA

0206345003 KNOW THAT ANTIBIOTICS CHANGE THE ENVIRONMENT OF CERTAIN TYPES OF MI
SURVIVAL.

0206345004 KNOW THAT THE FAVORABLE ENVIRONMENT FOR A VIRUS IS WITHIN THE

0206345005 KNOW THAT ONLY ANTIBODIES GIVE IMMUNITY.

0206345006 THE CHILD WILL DESCRIBE THAT HIS STOMACH CELLS MAKE A JUICE WHICH
THIS COULD HELP REDUCE THE GROWTH OF BACTERIA.

0206345007 THE CHILD WILL DESCRIBE THAT ANTISEPTICS REDUCE THE GROWTH OF B

0206345008 DEMONSTRATE PURIFYING WATER WITH CHEMICALS BY OBSERVING MICROORGANI
BLEACH TO THE SLIDE, KILLING THE ORGANISMS.

0206345009 IDENTIFY SOURCES OF INFORMATION TO ANSWER FOUR QUESTIONS ABOUT KEEPI

0206345010 GIVEN SENTENCE DESCRIBING SOME ACTIVITIES OF A MICROORGANI
HARMFUL TO MAN.

0206345011 KNOW THAT THE BODY, BY REFLEX ACTS, EXPELS BACTERIA AND OTHER IRRIT

: MIX STARCH IN TWO TUBES, ADD DIASTASE TO ONE, TEST BOTH WITH BENEDICT'S SOLUTION

IA IN STOMACH-USING FOOD- GELATIN. ADD TEN DROPS OF WEAK HYDROCHLORIC ACID TO
NE GROWTH.

ETE SUBSTANCES THAT PROVIDE AN ENVIRONMENT UNFAVORABLE TO BACTERIA.

EPITHELIAL CELLS THAT LINE THE BODY CAVITIES.

THE ENVIRONMENT OF CERTAIN TYPES OF MICROORGANISMS, MAKING IT UNFAVORABLE TO THEIR

RONMENT FOR A VIRUS IS WITHIN THE BODY CELLS.

VE IMMUNITY.

HIS STOMACH CELLS MAKE A JUICE WHICH CONTAINS WEAK HYDROCHLORIC ACID, AND THAT
ROWTH OF BACTERIA.

ANTISEPTICS REDUCE THE GROWTH OF BACTERIA.

WITH CHEMICALS BY OBSERVING MICROORGANISMS WITH A MICROSCOPE, WHILE ADDING CHLORINE
THE ORGANISMS.

TION TO ANSWER FOUR QUESTIONS ABOUT KEEPING WATER AND FOOD FREE FROM BACTERIA.

ME ACTIVITIES OF A MICROORGANISM; TELL WHETHER ACTIVITIES ARE HELPFUL OR

X ACTS, EXPELS BACTERIA AND OTHER IRRITANTS.

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0206345012      KNOW THAT THE WHITE BLOOD CELLS ARE ONE OF THE BODY'S    DEFENSES AG

0206345013      NAME BODY'S LINES OF DEFENSE WHICH HELP IN RESISTING     AND/OR COMB

0206345014      FIND THAT MOST GERMS DO NOT GROW WHEN AN ANTISEPTIC IS   USED.

0206345015      DEMONSTRATE ANTISPETICS USING FOOD-GELATIN, ADD DROPS OF DIFFERENT A
                WATER TO ONE AS A CONTROL, EXPOSED DISHES AND DETERMINE  GROWTH.

0206345016      KNOW THAT SOME DISEASES CAUSE THE BODY TO BUILD          IMMUNITY.

0206345017      TELL DIFFERENCE BETWEEN STRUCTURES AND FUNCTIONS OF FOUR GENERAL GRO
                FUNGUS, BACTERIA AND PROTOZOA.

0206345018      GIVEN EXAMPLES OF COMMON (HOUSEHOLD OR PROFESSIONAL)     MEDICAL PRA
                ANTIBIOTICS ARE BEING USED TO COMBAT INFECTIOUS          BACTERIA.

0206345019      DESCRIBE HOW WATER AND FOOD ARE KEPT FREE FROM BACTERIA.

0206345020      WHEN GIVEN LIST OF SCIENTISTS (LOUIS PASTEUR, EDWARD     JENNER, JOS
                ROBERT KOCH) AND THEIR SCIENTIFIC DISCOVERIES, MATCH     EACH SCIENT

0206345021      TELL DIFFERENCE BETWEEN DEFINITIONS OF FOLLOWING TYPES   OF DISEASES

0206345022      GIVEN DESCRIPTION OF A PARTICULAR DISEASE AND THE WAY IT IS CONTRACT
                NONCOMMUNICABLE.

0206345023      IDENTIFY WAYS IN WHICH SPECIFIC DISEASE CAUSING          ORGANISMS E
                ENTRY WITH AIR AND THROUGH SKIN).

0206345024      IDENTIFY THE MOST EFFECTIVE METHODS USED TO PREVENT THE  SPREAD OF D
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 ONE OF THE BODY'S    DEFENSES AGAINST INFECTION.

HELP IN RESISTING     AND/OR COMBATING DISEASE-CAUSING MICROORGANISMS.

EN AN ANTISEPTIC IS   USED.

GELATIN, ADD DROPS OF DIFFERENT ANTISEPTICS TO DIFFERENT DISHES AND BOILED
DISHES AND DETERMINE  GROWTH.

ODY TO BUILD          IMMUNITY.

AND FUNCTIONS OF FOUR GENERAL GROUPS OF DISEASE-CAUSING MICROORGANISMS. VIRUS.

 OR PROFESSIONAL)     MEDICAL PRACTICES, TELL WHETHER CHEMICALS, HEAT, OR
T INFECTIOUS          BACTERIA.

T FREE FROM BACTERIA.

S PASTEUR, EDWARD     JENNER, JOSEPH LISTER, JONAS SALK, ALEXANDER FLEMING,
ISCOVERIES, MATCH     EACH SCIENTIST WITH HIS DISCOVERY.

 OF FOLLOWING TYPES   OF DISEASES: ORGANIC, ALLERGIC, INFECTIOUS, DEFICIENCY.

ISEASE AND THE WAY IT IS CONTRACTED, CLASSIFY DISEASE AS COMMUNICABLE OR

ASE CAUSING           ORGANISMS ENTER THE BODY (ENTRY WITH WATER, MILK, FOOD;

 USED TO PREVENT THE  SPREAD OF DISEASE.
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0206370	HUMAN BODY (HEALTH CONDITIONS)
0206370001	FROM LIST OF STATEMENTS, IDENTIFY THOSE WHICH DESCRIBE STORY ABOUT HEALTH PROBLEMS IN UNDERDEVELOPED NATION.
0206375	HUMAN BODY (HEALTH AND SAFETY)
0206375001	LIST SEVEN EXAMPLES OF GOOD HEALTH AND SAFETY RESPONSIBLE FOR EACH ITEM LISTED.
0206390	HUMAN BODY (NERVOUS)
0206390001	IDENTIFY THE LOCATIONS AND FUNCTIONS OF MAJOR PARTS OF MEDULLA) AND SPINAL CORD.
0206405	HUMAN BODY (REFLEX)
0206405001	DEMONSTRATE A REFLEX ACTION BY HOLDING CELLOPHANE IN A BALL OF PAPER GENTLY AGAINST IT.
0206405002	DEMONSTRATE A SIMPLE REFLEX, BY SITTING WITH LEGS BELOW THE KNEE WITH THE EDGE OF THE PALM.
0206415	HUMAN BODY (SKELETAL)
0206415001	IN DIAGRAM OF HUMAN SKELETON, LOCATE SKULL, RIB CAGE, PHALANGES.
0206415002	GIVEN DIAGRAM OF SKELETON, LOCATE FOUR KINDS OF JOINTS.
0206420	HUMAN BODY (SKIN, HAIR, TEETH, NAILS)
0206420001	INVESTIGATE THE PROTECTIVE FUNCTIONS OF THE EPITHELIAL

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)
TIFY THOSE WHICH DESCRIBE   HEALTH CONDITIONS IN AN UNDERDEVELOPED NATION.  TELL A
N UNDERDEVELOPED NATION.

)
EALTH AND SAFETY            PRECAUTIONS AND EXPLAIN WHY YOU SHOULD OR SHOULD NOT BE
TED.

UNCTIONS OF MAJOR PARTS OF  CENTRAL NERVOUS SYSTEM: BRAIN (CEREBELLUM, CEREBRUM,

BY HOLDING CELLOPHANE IN    FRONT OF HIS EYES AND ALLOWING ANOTHER STUDENT TO THROW
ST IT.
 BY SITTING WITH LEGS       HANGING LOOSELY, ALLOWING ANOTHER CHILD TO TAP HIM JUST
 OF THE PALM.

, LOCATE SKULL, RIB CAGE,   BACKBONE, PELVIS, FEMUR, TIBIA, FIBULA, RADIUS, ULNA,
OCATE FOUR KINDS OF JOINTS. HINGE, BALL-AND-SOCKET, IMMOVABLE, AND PIVOT JOINTS.

H, NAILS)
UNCTIONS OF THE EPITHELIAL  CELLS THAT COVER OUTER BODY SURFACES.
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0206425	HUMAN BODY (SYSTEMS)
0206425001	MATCH SYSTEMS OF HUMAN BODY (DIGESTIVE, CIRCULATORY, RESP SKELETAL, MUSCULAR, AND SKIN) WITH IMPORTANT GENERAL FUNC
0206440	HUMAN BODY (WATER)
0206440001	KNOW THAT BACTERIA MAY BE CHEMICALLY REMOVED FROM WATER TO M
0206440002	KNOW THAT MANY HARMFUL BACTERIA AND UNDESIRABLE SOLIDS ARE
0206445	INSECTS
0206445001	DEMONSTRATE COLLECTION OF FRUIT FLIES IN WARM SEASON. ATTR COTTON OR CLOTH.
0206445002	DESCRIBE DIFFERENT CHARACTERISTICS OF FRUIT FLIES. USE MAGN
0206450	INTERDEPENDENCE
0206450001	KNOW THAT LIVING THINGS ARE INTERDEPENDENT.
0206450002	KNOW THAT LIVING THINGS ARE INTERDEPENDENT WITH ONE ANOT
0206450003	KNOW THAT IN ATTEMPTS TO UNDERSTAND THE WORLD IN WHICH HE L THAT LIVING THINGS ARE INTERDEPENDENT WITH ONE ANOTHER AND
0206455	LIGHT
0206455001	RECOGNIZE WHICH ONE OF THE THREE MOST COMMON THEORIES ABOU THE WAY LIGHT TRAVELS.

GESTIVE, CIRCULATORY, RESPIRATORY, NERVOUS, REPRODUCTIVE, GLAND, EXCRETORY,
ITH IMPORTANT GENERAL FUNCTIONS OF EACH.

CALLY REMOVED FROM WATER TO MAKE IT SUITABLE FOR DRINKING.

AND UNDESIRABLE SOLIDS ARE REMOVED FROM WATER BY FILTRATION.

FLIES IN WARM SEASON. ATTRACT WITH RAW OR COOKED FRUIT IN JAR. CLOSE JAR WIT

ICS OF FRUIT FLIES. USE MAGNIFYING GLASS.

ERDEPENDENT.

ERDEPENDENT WITH ONE ANOTHER AND WITH THEIR ENVIRONMENT.

STAND THE WORLD IN WHICH HE LIVES, MAN HAS DEVELOPED THE LARGE CONCEPTUAL SCHEME
PENDENT WITH ONE ANOTHER AND THE ENVIRONMENT.

E MOST COMMON THEORIES ABOUT THE NATURE OF LIGHT IS DEMONSTRATED IN EXAMPLES OF

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0206455002      TELL HOW LIGHT AND THE PARTS OF YOUR EYE INTERACT TO       PRO

0206455003      WHEN YOU ARE GIVEN INFORMATION ABOUT THE ROUGHNESS OR      SMO
                REFLECT LIGHT IN A SCATTERED WAY AND WHICH WILL REFLECT    IT

0206455004      RECOGNIZE WHETHER SUBSTANCES OR OBJECTS WITH DIFFERENT     SUR
                LIGHT WHICH FALLS ON THEM OR WILL ABSORB IT.

0206455005      TELL WHETHER OBJECTS ARE TRANSPARENT, TRANSLUCENT, OR      OPA

0206455006      PREDICT ANGLE AT WHICH LIGHT WILL BE REFLECTED FROM A      SUR
                THAT SURFACE.

0206455007      RECOGNIZE DIAGRAMS THAT CORRECTLY ILLUSTRATE HOW WHITE     LIG
                CONCAVE AND CONVEX LENSES, (2) THROUGH PRISMS, AND (3)     THR

0206455008      PREDICT THE KINDS OF IMAGES THAT WILL BE MADE BY CONVEX    LEN




0206460         MACHINES

0206460001      KNOW THAT THE AMOUNT OF ENERGY GOTTEN OUT OF A MACHINE     DOE

0206460002      KNOW THAT MACHINES MAY MULTIPLY FORCE, INCREASE SPEED,     OR

0206460003      VERIFY THE CONCEPT BY INVESTIGATING A DIFFERENT MACHINE.


0206465         MACHINES (COMPOUND)

0206465001      KNOW THAT MOST COMPOUND MACHINES ARE MODIFICATIONS OR      COM

0206465002      KNOW THAT COMPOUND MACHINES MULTIPLY THE FORCES OF THE     SIM
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YOUR EYE INTERACT TO PRODUCE AN IMAGE.

ABOUT THE ROUGHNESS OR SMOOTHNESS OF SOME OBJECTS, RECOGNIZE WHICH ONES WILL
Y AND WHICH WILL REFLECT IT IN A REGULAR WAY.

OBJECTS WITH DIFFERENT SURFACE TEXTURES AND COLORS WILL REFLECT MOST OF THE
LL ABSORB IT.

ARENT, TRANSLUCENT, OR OPAQUE.

LL BE REFLECTED FROM A SURFACE WHEN GIVEN THE ANGLE AT WHICH THAT LIGHT STRIKE

TLY ILLUSTRATE HOW WHITE LIGHT IS BENT (REFRACTED) AS IT PASSES (1) THROUGH
THROUGH PRISMS, AND (3) THROUGH WATER.

AT WILL BE MADE BY CONVEX LENSES AND THE TYPES MADE BY CONCAVE LENSES.

GOTTEN OUT OF A MACHINE DOES NOT EXCEED THE ENERGY PUT INTO IT.

Y FORCE, INCREASE SPEED, OR CHANGE DIRECTION.

ATING A DIFFERENT MACHINE.

NES ARE MODIFICATIONS OR COMBINATIONS OF A FEW SIMPLE MACHINES.

ULTIPLY THE FORCES OF THE SIMPLE MACHINES OF WHICH THEY CONSIST.

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0206465003      KNOW THAT BOTH PHYSICAL AND CHEMICAL CHANGES OCCUR IN    STEAM

0206465004      KNOW THAT INTERNAL COMBUSTION ENGINES TRANSFER THE       FORCE



0206470         MACHINES (SIMPLE)

0206470001      KNOW THAT A SIMPLE MACHINE MULTIPLIES EFFORT BUT DOES    NOT INC

0206470002      KNOW THAT A SCREW IS A WINDING INCLINED PLANE.

0206470003      DEMONSTRATE IT IS EASIER TURNING A SCREW INTO WOOD THAN  PUSHING
                ATTEMPTING TO PUSH IT THE REST OF THE WAY.

0206470004      CONSTRUCT A WINDING INCLINED PLANE.  CUT INCLINED PLANE  12 INCH
                WILL RISE 1/2 INCH PER TURN AND TAKE 11 TURNS.

0206470005      DESCRIBE THAT TURNING THE SCREW INTO WOOD IS SIMILAR TO  USING

0206470006      KNOW THAT WEDGES ARE MOVABLE INCLINED PLANES FOR         OVERCOM

0206470007      DEMONSTRATE AN INCLINED PLANE MAKES A JOB EASIER BY      PULLING
                BOARD, CAUSING THE AMOUNT TO READ LESS THAN BY LIFTING   THE SKA

0206470008      KNOW THAT THE EFFORT NEEDED TO RAISE A WEIGHT A GIVEN    DISTANC
                IS INCREASED.

0206470009      KNOW THAT A LEVER IS A SIMPLE MACHINE THAT CONCENTRATES  THE EFF
                LEVER USUALLY MULTIPLIES FORCE.

0206470010      KNOW THAT THE EFFORT NEEDED TO RAISE A WEIGHT WITH A     LEVER
                THE EFFORT FROM THE FULCRUM.

0206470011      KNOW THAT MOVING THE FULCRUM IN RELATION TO LOAD AND     EFFORT
                APPLIED TO LIFT A LOAD.
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ICAL CHANGES OCCUR IN STEAM AND INTERNAL COMBUSTION ENGINES.

GINES TRANSFER THE FORCE OF KINETIC ENERGY DIRECTLY TO MACHINES.

PLIES EFFORT BUT DOES NOT INCREASE WORK.

NCLINED PLANE.

A SCREW INTO WOOD THAN PUSHING IT BY PARTIALLY TURNING IT INTO WOOD THEN
F THE WAY.

NE. CUT INCLINED PLANE 12 INCHES BY 6 INCHES AND WIND IT AROUND A PENCIL. IT
TAKE 11 TURNS.

INTO WOOD IS SIMILAR TO USING AN INCLINED PLANE USING LESS EFFORT FORCE.

LINED PLANES FOR OVERCOMING GREAT RESISTANCES.

KES A JOB EASIER BY PULLING A SKATE WITH A SPRING BALANCE UP A SLANTED
D LESS THAN BY LIFTING THE SKATE ALONE.

AISE A WEIGHT A GIVEN DISTANCE DECREASES AS THE LENGTH OF AN INCLINED PLACE

CHINE THAT CONCENTRATES THE EFFORT FORCE AND THE LOAD, EACH AT ONE POINT; A

AISE A WEIGHT WITH A LEVER DEPENDS ON THE RELATIVE DISTANCES OF THE LOAD AND

RELATION TO LOAD AND EFFORT INCREASES OR DECREASES THE EFFORT THAT MUST BE

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0206470012       KNOW THAT THE LONGER THE EFFORT ARM, THE MORE A FORCE IS MULTIPL

0206470013       DEMONSTRATE LOCATION OF FULCRUM AFFECTING EFFORT FORCE   USING A
                 CLOSE TO EFFORT, CAUSING GREATER EFFORT FORCE AS FULCRUM IS CLOSE

0206470014       DEMONSTRATE A LEVER MAKES A JOB EASIER BY USING A RULER  TO HOLD
                 DOWN THE OTHER END CAUSING IT TO READ LESS THAN WITH THE BALANCE

0206470015       DESCRIBE THAT THE LEVER IS A FORCE MULTIPLIER SINCE IT   ALLOWS

0206470016       KNOW THAT A FIXED PULLEY CHANGES THE DIRECTION OF A      FORCE;

0206470017       KNOW THAT A FIXED PULLEY CHANGES THE DIRECTION OF THE    EFFORT

0206470018       DEMONSTRATE A FIXED PULLEY CHANGES DIRECTION OF FORCE    REQUIRE
                 FIXED PULLY.  COMPARING DIRECTION WITH AND WITHOUT       PULLEY.

0206470019       DEMONSTRATE A MOVABLE PULLEY REDUCES EFFORT IN           COMPARSI
                 A FIXED AND MOVABLE PULLEY CAUSING LESS EFFORT WITH      MOVABLE

0206470020       KNOW THAT PULLEY SYSTEMS BOTH CHANGE THE DIRECTION OF A  FORCE A

0206470021       TEST UNDERSTANDING OF PULLEYS BY CONSIDERING SEVERAL     SITUATIC

0206470022       KNOW THAT A BLOCK AND TACKLE PULLEY SYSTEM MULTIPLIES    THE FORC

0206470023       DEMONSTRATE A BLOCK AND TACKLE CAN INCREASE THE TIMES A  FORCE IS
                 TACKLE USING FIXED AND MOVABLE PULLEYS PROVING FORCE IS  INCREASE

0206470024       DESCRIBE THE AMOUNT OF EFFORT FORCE IS MULTIPLIED IS     INCREASE
                 SUPPORT THE MOVEABLE PULLEY BLOCK.

0206470025       DEMONSTRATE USING TWO DOUBLE BLOCKS IN A BLOCK AND       TACKLE M
                 BOTH SYSTEMS.  COMPARE EFFORT.
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T ARM, THE MORE A FORCE IS MULTIPLIED.

M AFFECTING EFFORT FORCE USING A SPRING BALANCE TO MEASURE FORCE WHEN FULCRUM IS
ER EFFORT FORCE AS FULCRUM IS CLOSER TO LOAD.

B EASIER BY USING A RULER TO HOLD A BOOK WHILE A SPRING BALANCE IS USED TO PULL
TO READ LESS THAN WITH THE BALANCE ALONE.

ORCE MULTIPLIER SINCE IT ALLOWS FOR LESS FORCE NEEDED TO LIFT AN OBJECT.

ES THE DIRECTION OF A FORCE; IT DOES NOT MULTIPLY THE FORCE.

ES THE DIRECTION OF THE EFFORT FORCE; A MOVABLE PULLEY DOUBLES THE FORCE.

NGES DIRECTION OF FORCE REQUIRED TO LIFT A LOAD, BY LIFTING A BRICK USING A
ION WITH AND WITHOUT PULLEY.

REDUCES EFFORT IN COMPARSION WITH A FIXED PULLEY BY LIFTING A BRICK USING
JSING LESS EFFORT WITH MOVABLE PULLEY.

CHANGE THE DIRECTION OF A FORCE AND MULTIPLY IT.

BY CONSIDERING SEVERAL SITUATIONS IN WHICH THEY MAY BE USED.

PULLEY SYSTEM MULTIPLIES THE FORCE BY THE NUMBER OF ROPES THAT SUPPORT THE LOAD.

E CAN INCREASE THE TIMES A FORCE IS MULTIPLIED - WEIGH LOAD, LIFT WITH BLOCK AND
E PULLEYS PROVING FORCE IS INCREASED.

FORCE IS MULTIPLIED IS INCREASED WITH AN INCREASE IN THE NUMBER OF STRINGS THAT
LOCK.

BLOCKS IN A BLOCK AND TACKLE MULTIPLY FORCE MORE THAN TWO SINGLE BLOCKS. USE
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0206470026       KNOW THAT ONE USE OF THE WHEEL AND AXLE IS TO INCREASE   SPEED.

0206470027       KNOW THAT A WHEEL AND AXLE MULTIPLIES FORCE WHEN IT IS   APPLIED TO TH
                 APPLIED TO THE AXLE.

0206470028       KNOW THAT GEARS MULTIPLY FORCE OR INCREASE SPEED AS THE  WHEEL AND AXL
                 FORCE.

0206470029       DEMONSTRATE FRICTION RESISTS MOTION BY PULLING WOOD      ACROSS THREE
                 OILED SURFACE, COMPARING WITH SPRING BALANCE WHICH       REQUIRES GREA

0206470030       DEMONSTRATE WORK LIFTING A SKATE TO THE TOP OF A PILE OF BOOKS IS EQUA
                 TO EQUAL HEIGHT BY READING A SPRING BALANCE AND APPLYING THE WORK RULE

0206470031       MATCH EXAMPLES OF INCLINED PLANE, FIXED PULLEY, WHEEL    AND AXLE, LEV
                 THEY MAKE WORK EASIER.

0206470032       WHEN GIVEN DRAWINGS OF LEVERS, RECOGNIZE THE FULCRUM,    THE LOAD, AND

0206470033       DEMONSTRATE DIFFERENCE BETWEEN VALUE OF A FIXED PULLEY   AND VALUE OF

0206470034       DEMONSTRATE RELATIONSHIPS BETWEEN EFFORT APPLIED AND     AMOUNT OF WOR
                 SIMPLE MACHINES.



0206480          MAGNETS

0206480001       DEMONSTRATE DIFFERENCE BETWEEN MAGNETIC MATERIALS WHICH  ARE PERMANENT

0206480002       GIVEN DIAGRAM OR DRAWING OF A MAGNETIC FIELD, LOCATE THE STRONGEST AND
                 FIELD.

0206480003       TELL THE DIFFERENCE BETWEEN THE NORTH GEOGRAPHIC POLE    AND THE NORTH
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ND AXLE IS TO INCREASE SPEED.

PLIES FORCE WHEN IT IS APPLIED TO THE WHEEL, AND INCREASES SPEED WHEN IT IS

R INCREASE SPEED AS THE WHEEL AND AXLE DOES, AND CHANGE THE DIRECTION OF THE

ION BY PULLING WOOD ACROSS THREE DIFFERENT SURFACES-TABLE TOP, SAND PAPER,
RING BALANCE WHICH REQUIRES GREATEST EFFORT.

TO THE TOP OF A PILE OF BOOKS IS EQUAL TO WORK PULLING IT UP AN INCLINED PLANE
ING BALANCE AND APPLYING THE WORK RULE.

FIXED PULLEY, WHEEL AND AXLE, LEVEL, WEDGE, AND SCREW WITH WAYS IN WHICH

ECOGNIZE THE FULCRUM, THE LOAD, AND THE BEST POINT TO APPLY EFFORT.

ALUE OF A FIXED PULLEY AND VALUE OF A BLOCK AND TACKLE AS SIMPLE MACHINES.

N EFFORT APPLIED AND AMOUNT OF WORK DONE IN EXPERIMENTAL SITUATIONS USING

AGNETIC MATERIALS WHICH ARE PERMANENT AND THOSE WHICH ARE TEMPORARY.

GNETIC FIELD. LOCATE THE STRONGEST AND WEAKEST LINES OF FORCE IN THE MAGNETIC

NORTH GEOGRAPHIC POLE AND THE NORTH MAGNETIC POLE.

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0206490       METALS

0206490001    KNOW THAT THE CONCEPTS OF THE BEHAVIOR OF MATTER HAD TO  BE UNDER

0206490002    KNOW THAT METALS CAN BE SEPARATED FROM THEIR COMPOUNDS;  THEY CAN
              PROPERTIES.

0206490003    KNOW THAT HEAT IS A SOURCE OF ENERGY FOR EXTRACTING      COPPER F

0206490004    KNOW THAT HEAT IS A SOURCE OF ENERGY FOR EXTRACTING IRON FROM ITS

0206490005    KNOW THAT METALS WITH NEW PROPERTIES CAN BE OBTAINED IF  TWO OR M
              MELTED TOGETHER AND COOLED.

0206490006    KNOW THAT ALLOYS PROVIDE US WITH SUBSTANCES WITH         ADVANTAG

0206490007    KNOW THAT ALUMINUM HAS MANY USES.


0206510       PLANTS (ADAPTATION)

0206510001    DESCRIBE THAT PLANTS FROM POTATO HAD SAME HEREDITY BUT   DID NOT


0206515       PLANTS (BACTERIA)

0206515001    KNOW THAT BACTERIA CAN BE CLASSIFIED, OR GROUPED BY      THEIR ST

0206515002    INFER, FROM INVESTIGATION, THAT HEAT AND ABSENCE OF      LIGHT IN
              MOST BACTERIA.

0206515003    APPLY UNDERSTANDING OF THE NEEDS OF BACTERIA TO METHODS  OF FOOD

0206515004    KNOW THAT BACTERIA CAN BE CLASSIFIED AS HELPFUL OR       HARMFUL
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HE BEHAVIOR OF MATTER HAD TO  BE UNDERSTOOD BEFORE METALS COULD  BE USED WIDELY.

ARATED FROM THEIR COMPOUNDS;  THEY CAN BE COMBINED TO OBTAIN NEW COMPOUNDS HAVING NEW

OF ENERGY FOR EXTRACTING      COPPER FROM ITS ORES.

OF ENERGY FOR EXTRACTING IRON FROM ITS ORE.

ROPERTIES CAN BE OBTAINED IF  TWO OR MORE ELEMENTS, AT LEAST ONE OF THEM A METAL, ARE

 WITH SUBSTANCES WITH         ADVANTAGEOUS PROPERTIES.

 USES.



OTATO HAD SAME HEREDITY BUT   DID NOT DEVELOP ALIKE DUE TO ENVIRONMENT.



LASSIFIED, OR GROUPED BY      THEIR STRUCTURE.

THAT HEAT AND ABSENCE OF      LIGHT IN THE ENVIRONMENT ARE ESSENTIAL FOR GROWTH OF

NEEDS OF BACTERIA TO METHODS  OF FOOD PRESERVATION.

LASSIFIED AS HELPFUL OR       HARMFUL TO MAN.
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0206515005      KNOW THAT THE GROWTH OF LARGE NUMBERS OF BACTERIA OR     TOXICITY OF
                HEALTH.

0206515006      KNOW THAT BACTERIA OBTAIN FOOD FROM CHANGING COMPLEX     SUBSTANCES

0206515007      CHILD WILL DEMONSTRATE GROWTH OF BACTERIA USING PETRI    DISHES, EXP
                REFRIGERATOR AND OTHER IN A WARM DARK PLACE, THEN        COMPARE GRO

0206515008      DEMONSTRATE CULTURE OF MICROORGANISMS, BY ADDING HARD-   BOILED EGG
                FOR SEVERAL DAYS UNTIL CULTURE IS SWARMING WITH          BACTERIA.

0206515009      GIVEN DRAWINGS OR DESCRIPTIONS OF THREE TYPES OF         BACTERIA (C
                CORRECTLY.



0206520         PLANTS (BACTERIA AND MOLD)

0206520001      KNOW THAT BACTERIA AND MOLD ARE CLASSIFIED AS PLANTS BY  THEIR STRUC

0206520002      KNOW THAT BACTERIA AND MOLDS CHEMICALLY BREAK DOWN       COMPLEX FOO
                THROUGH A MEMBRANE.


0206545         PLANTS (GROWTH)

0206545001      DEMONSTRATE EFFECT OF ENVIRONMENT ON LIVING THINGS OF    SAME HEREDI
                FOOD, WATER, LIGHT, AND ARRANGE IN FOUR DIFFERENT        COMBINATION


0206550         PLANTS (HYBRIDS)

0206550001      DEMONSTRATE CROSS-POLLINATION OF PETUNIAS.  REMOVE       STAMENS FRO
                TRANSFER POLLEN TO IT FROM RED FLOWER.  PRODUCE PINK-    WHITE FLOWE
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NUMBERS OF BACTERIA OR TOXICITY OF SUBSTANCES FORMED MAY BE DANGEROUS TO

FROM CHANGING COMPLEX SUBSTANCES INTO SIMPLER ONES.

OF BACTERIA USING PETRI DISHES, EXPOSE THE PREPARED DISHES, PLACING ONE IN
RM DARK PLACE, THEN COMPARE GROWTH.

GANISMS, BY ADDING HARD- BOILED EGG YOLK TO JAR OF POND WATER, KEEPING IT WARM
IS SWARMING WITH BACTERIA.

OF THREE TYPES OF BACTERIA (COCCUS, BACILLUS, AND SPIRILLUM), LABEL

E CLASSIFIED AS PLANTS BY THEIR STRUCTURE.

HEMICALLY BREAK DOWN COMPLEX FOODS INTO SIMPLE SUBSTANCES THAT CAN PASS

ENT ON LIVING THINGS OF SAME HEREDITY. GROW PLANTS FROM POTATO EYES; CONTROL
E IN FOUR DIFFERENT COMBINATIONS.

OF PETUNIAS. REMOVE STAMENS FROM COVERED WHITE BUD. LET FLOWER MATURE,
FLOWER. PRODUCE PINK- WHITE FLOWER FROM IT.

0206555	PLANTS (MOLDS)
0206555001	DEMONSTRATE GROWTH OF MOLD. USE TWO PIECES OF DRY BREAD, PLACE. MOLD WILL GROW ON MOIST PIECE.
0206555002	THE CHILD WILL DESCRIBE THE MOLD WHICH GROWS BY OBSERVI OF THREADS, BLACK BALL AT ONE END, AND ROOT-LIKE PARTS.
0206565	PLANTS (NONGREEN)
0206565001	KNOW THAT NONGREEN PLANTS ARE INTERDEPENDENT WITH OTHER ORGANI CONDITIONS FAVORABLE TO SURVIVAL.
0206565002	KNOW THAT BACTERIA, PLANTS WITHOUT CHLOROPHYLL, DEPEND ON OTH
0206565003	KNOW NONGREEN PLANTS GROW AND REPRODUCE RAPIDLY IN A FAVORA
0206585	PLANTS (TREES)
0206585001	DEMONSTRATE TREE GRAFTING IN EARLY SPRING. PREPARE AND GRAFT CLOTH AND WAX.
0206610	REPRODUCTION
0206610001	KNOW THAT SOME PLANTS CAN REPRODUCE NEW PLANTS FROM A PART O
0206610002	KNOW THAT AN EMBRYO CONTAINS THE BEGINNING OF A NEW ORGANI
0206620	SCIENTIFIC METHOD
0206620001	KNOW THAT ACHIEVEMENT OF A GOAL INVOLVES INSIGHT AND REQUIR

USE TWO PIECES OF DRY BREAD, MOISTEN ONE, PLACE EACH IN A SEALED JAR IN DARK
MOIST PIECE.

E MOLD WHICH GROWS BY OBSERVING WITH A MICROSCOPE AND NOTING CHARACTERISTICS
ONE END, AND ROOT-LIKE PARTS.

ARE INTERDEPENDENT WITH OTHER ORGANISMS FOR THEIR FOOD AND WITH THEIR ENVIRONMENT FOR
URVIVAL.

S WITHOUT CHLOROPHYLL, DEPEND ON OTHER ORGANISMS FOR THEIR FOOD.

AND REPRODUCE RAPIDLY IN A FAVORABLE ENVIRONMENT.

IN EARLY SPRING. PREPARE AND GRAFT 2 RELATED FRUIT TREE BRANCHES, COVER GRAFT WITH

REPRODUCE NEW PLANTS FROM A PART OF THEMSELVES.

AINS THE BEGINNING OF A NEW ORGANISM.

A GOAL INVOLVES INSIGHT AND REQUIRES MAKING OF DEFINITE PLANS.

0206620002	KNOW THAT DISCOVERY OF NEW PROCESSES AND PRODUCTS DEPENDS ON EARLIER TECHNOLOGICAL ADVANCES.
0206620003	KNOW THAT INVENTION OF NEW MATERIALS DEPENDS ON UNDERSTAND
0206620004	KNOW THAT A CONCEPT IS ARRIVED AT ONLY AFTER CAREFUL AND EXTENSIVE
0206620005	RECOGNIZE THAT THE HABIT OF SEEKING RELATIONSHIPS BETWEEN CO
0206620006	GAIN FURTHER INSIGHT INTO REFINING PLANS FOR INVESTIGAT
0206620007	KNOW THAT A SCIENTIST IN HIS INVESTIGATIONS USES THE PROCESSES
0206620008	KNOW THAT BY STUDYING AND APPLYING CONCEPTS, SCIENTISTS HAVE FOUND
0206620009	KNOW THAT CONCEPTS ARE A BASE FOR DRAWING INFERENCES.
0206620010	KNOW THAT SEARCHING FOR HIDDEN LIKENESSES LEADS TO CONCEPTS.
0206620011	KNOW THAT TECHNOLOGISTS APPLY CONCEPTS.
0206620012	DEMONSTRATE THE TESTING OF HYPOTHESIS, INDICATING WHETHER OR THE RESULTS.

0206635	SOLAR SYSTEM (STARS)
0206635001	KNOW THAT NUCLEAR REACTIONS PRODUCE THE RADIANT ENERGY OF STARS,
0206635002	KNOW THAT NUCLEAR REACTIONS ARE THE SOURCE OF THE SUN'S ENERGY.

AND PRODUCTS DEPENDS ON UNDERSTANDING CONCEPTS IN SCIENCE, AS WELL AS

DEPENDS ON UNDERSTANDING BASIC CONCEPTS OF SCIENCE.

LY AFTER CAREFUL AND EXTENSIVE INVESTIGATIONS AND EXPERIMENTS.

RELATIONSHIPS BETWEEN CONCEPTS CAN LEAD TO NEW DISCOVERIES.

LANS FOR INVESTIGATIONS.

GATIONS USES THE PROCESSES OF LEARNING.

ONCEPTS, SCIENTISTS HAVE FOUND A MEANS FOR CONQUERING MANY DISEASES.

AWING INFERENCES.

ESSES LEADS TO CONCEPTS.

TS.

S, INDICATING WHETHER OR NOT HE ACCEPTS HIS OWN HYPOTHESIS, BASED ON

THE RADIANT ENERGY OF STARS, AND CONSEQUENT CHANGE.

SOURCE OF THE SUN'S ENERGY.

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0206635003         KNOW THAT ANALYSIS OF LIGHT FROM A STAR HELPS US          DETE
                   THROUGH THE DOPPLER EFFECT FOR LIGHT.

0206635004         KNOW THAT THE HEAT ENERGY OF A STAR IS A CLUE TO ITS      SIZE

0206635005         KNOW THAT THE HEAT, TEMPERATURE, AND SIZE OF A STAR CAN   BE D

0206635006         KNOW THAT THE TOTAL HEAT AND LIGHT ENERGY OF A STAR IS A  FURT

0206635007         KNOW THAT THE MILKY WAY GALAXY IS VAST IN THE NUMBER OF   ITS

0206635008         KNOW THAT THE NUMBER OF STARS IS ESTIMATED BY SAMPLING    REGI

0206635009         KNOW THAT IN ORDER TO ESTIMATE THE TOTAL NUMBER OF STARS  IN T
                   DIMENSIONS; THE LIGHT-YEAR UNIT OF DISTANCE IS            CONV

0206635010         KNOW THAT WE SEE THE SOLAR SYSTEM AND OUR GALAXY AS IT    WAS

0206635011         KNOW THAT STARS ARE CONTINUALLY CHANGING.

0206635012         KNOW THAT MOST STARS UNDERGO GRADUAL CHANGE.

0206635013         KNOW THAT SYSTEMS OF STARS MAY HAVE FORMED FROM           SUPE

0206635014         KNOW THAT THE POSITION OF THE STARS CHANGES IN A          PRED

0206635015         KNOW THAT THE CHANGING POSITIONS OF BODIES IN SPACE CAN   BE H
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FROM A STAR HELPS US DETERMINE ITS DIRECTION TOWARD OR AWAY FROM THE EARTH
FOR LIGHT.

F A STAR IS A CLUE TO ITS SIZE.

TURE, AND SIZE OF A STAR CAN BE DETERMINED BY ANALYSIS OF ITS LIGHT.

D LIGHT ENERGY OF A STAR IS A FURTHER CLUE TO ITS SIZE.

AXY IS VAST IN THE NUMBER OF ITS STARS AND THE DISTANCES BETWEEN THEM.

RS IS ESTIMATED BY SAMPLING REGIONS OF A GALAXY.

IATE THE TOTAL NUMBER OF STARS IN THE MILKY WAY, WE MUST DETERMINE THE GALAXY'S
UNIT OF DISTANCE IS CONVENIENT.

SYSTEM AND OUR GALAXY AS IT WAS IN THE PAST.

IALLY CHANGING.

IO GRADUAL CHANGE.

MAY HAVE FORMED FROM SUPERNOVAS.

THE STARS CHANGES IN A PREDICTABLE AND ORDERLY WAY.

ITIONS OF BODIES IN SPACE CAN BE PLOTTED WITH ACCURACY.

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0206640        SOUND

0206640001     KNOW THAT SOUND IS THE VIBRATION OF MOLECULES IN A       WAVELIK


0206640002     USE MOLECULAR THEORY AND THE WAVE THEORY TO EXPLAIN HOW  SOUND T
               PERSON WHO HEARS IT.

0206640003     TELL WHAT CONDITIONS ARE NEEDED FOR MAKING AND HEARING   SOUNDS.


0206640004     GIVEN EXPERIMENT WHICH PRODUCES DIFFERENT NUMBERS OF     WAVES,
               PER SECOND (FREQUENCY) IS RELATED TO AMOUNT OF FORCE     REQUIRE

0206640005     GIVEN EXPERIMENT AND DIAGRAM SHOWING RESULTS OF          EXPERIM
               (HEIGHT OR DEPTH) OF THE WAVES AND THE FORCE IT TOOK TO  MAKE TH

0206640006     DETERMINE THE DISTANCE TRAVELED BY A SOUND THROUGH THE   AIR GIV
               FROM ITS SOURCE TO THE HEARER.

0206640007     GIVEN LIST OF MATERIALS OR SUBSTANCES THAT TRANSMIT      SOUND,
               THOSE WHICH ARE POOR CONDUCTORS.

0206640008     GIVEN DESCRIPTION OF THE SURFACE OF A MATERIAL, TELL     WHETHER
               ECHO (REFLECT) IT.

0206640009     DESIGN EXPERIMENT WHICH DEMONSTRATES RELATIONSHIP        BETWEEN
               AMOUNT OF ENERGY TO VARY THE VOLUME OF SOUND PRODUCED).

0206640010     RECOGNIZE RELATIVE VOLUME OF A SERIES OF SOUNDS (LOUDEST OR SOFT
               OR WHEN GIVEN DATA ABOUT THE AMPLITUDE OF VOLUME.

0206640011     TELL HOW THE PITCH (FREQUENCY) OF A SOUND CAN BE RAISED  OR LOWE
               VIBRATING OBJECT IS CHANGED.


0206665        WEATHER

0206665001     TELL THE DIFFERENCE BETWEEN WEATHER AND CLIMATE.  TELL   WHAT AT
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MOLECULES IN A WAVELIKE PATTERN.

HEORY TO EXPLAIN HOW SOUND TRAVELS FROM ITS SOURCE (OR BEGINNING) TO THE

MAKING AND HEARING SOUNDS.

FERENT NUMBERS OF WAVES, DRAW DIAGRAM TO DEMONSTRATE THAT NUMBER OF WAVES
) AMOUNT OF FORCE REQUIRED TO MAKE THEM.

G RESULTS OF EXPERIMENT, RECOGNIZE RELATIONSHIP BETWEEN AMPLITUDE
THE FORCE IT TOOK TO MAKE THOSE WAVES.

A SOUND THROUGH THE AIR GIVEN THE NUMBER OF SECONDS SOUND TAKES TO TRAVEL

ES THAT TRANSMIT SOUND, IDENTIFY THOSE WHICH CARRY SOUND WAVES WELL AND

A MATERIAL, TELL WHETHER THE SURFACE WILL TAKE IN SOUND (ABSORB IT), OR

S RELATIONSHIP BETWEEN EXPENDED ENERGY AND VOLUME OF SOUND. (CHANGE
OF SOUND PRODUCED).

ES OF SOUNDS (LOUDEST OR SOFTEST) WHEN SHOWN GRAPHS PICTURING THEIR AMPLITUDE,
UDE OF VOLUME.

SOUND CAN BE RAISED OR LOWERED WHEN THE LENGTH, THICKNESS, OR TENSION OF THE

AND CLIMATE. TELL WHAT ATMOSPHERIC CONDITIONS ARE CHARACTERISTIC OF EACH.

0206670	WEATHER (CLOUDS)
0206670001	IDENTIFY BASIC CLOUD TYPES (CUMULUS, CIRRUS, AND CLOUD FORMATIONS.
0206675	WEATHER (FRONTS)
0206675001	RECOGNIZE THE FOUR KINDS OF WEATHER FRONTS (WARM, COLD, EXAMPLE OF EACH.
0206680	WEATHER (PRECIPITATION)
0206680001	MATCH DIFFERENT FORMS OF PRECIPITATION (RAIN, SLEET,
0206685	WEATHER (PREDICTION)
0206685001	GIVEN INFORMATION ABOUT FACTORS WHICH CAUSE MOVEMENT OF TEMPERATURES AND OTHER FACTORS WHICH CAUSE UNEQUAL
0206685002	PREDICT CHANGES IN THE WEATHER WHEN GIVEN READINGS FROM HYGROMETER).
0206685003	WHEN GIVEN DATA ON A WEATHER MAP, PREDICT THE PARTICULA
0206685004	MATCH THE TOOLS USED BY METEOROLOGISTS (ELECTRONIC SATELLITES) WITH THEIR FUNCTIONS IN PREDICTING WEATHER.
0206690	WEATHER (RECORDING)
0206690001	GIVEN DESCRIPTION OF A WEATHER CONDITION, IDENTIFY THE THE SPECIFIED CONDITION.
0206690002	CONSTRUCT A POINT GRAPH OR LINE GRAPH FROM THE WEATHER

YPES (CUMULUS, CIRRUS, AND STRATUS) WHEN GIVEN A DRAWING OR DESCRIPTION OF THESE

DS OF WEATHER FRONTS (WARM, COLD, STATIONARY, AND OCCLUDED) WHEN GIVEN A DESCRIPTION OR

F PRECIPITATION (RAIN, SLEET, HAIL, SNOW) WITH DESCRIPTION OF HOW EACH IS FORMED.

FACTORS WHICH CAUSE MOVEMENT OF AIR MASSES (ANGLE OF SUN'S RAYS, NIGHT AND DAY
FACTORS WHICH CAUSE UNEQUAL HEATING), PREDICT PROBABLE DIRECTION OF AIR MOVEMENT.

WEATHER WHEN GIVEN READINGS FROM RECORDING INSTRUMENTS (THERMOMETER, BAROMETER, AND

ATHER MAP, PREDICT THE PARTICULAR TYPES OF WEATHER CONDITIONS IN THAT AREA.

METEOROLOGISTS (ELECTRONIC COMPUTERS, RADAR, RADIOSONDE, WEATHER BALLOONS AND
FUNCTIONS IN PREDICTING WEATHER.

WEATHER CONDITION, IDENTIFY THE APPROPRIATE RECORDING INSTRUMENT FOR THE MEASUREMENT OF
.

OR LINE GRAPH FROM THE WEATHER FORECAST EACH DAY.

0206695 WEATHER (STORMS)

0206695001 RECOGNIZE DEFINITIONS OF DESTRUCTIVE FORCES OF WEATHER (THUNDERSTORM
WHEN GIVEN A DESCRIPTION OR DIAGRAM OF EACH STORM.

FORCES OF WEATHER (THUNDERSTORM, CYCLONE, TYPHOON, HURRICANE, AND TORNADO)
F EACH STORM.